



ANALYSIS OF COVARIANCE COMPUTER PROGRAM WITH MULTIPLE  
COVARIATES AND FORECAST CAPABILITY

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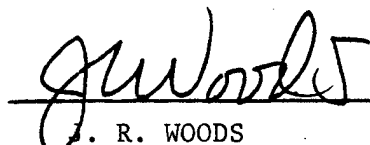
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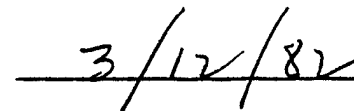
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# SUMMARY

This report documents the modifications to a U.C.L.A. Biomedical Mathematics Department (BMD) Analysis-of-Covariance Statistical Computer Program. The computer code was revised by the NAVAIRDEVCON to increase the computational accuracy and formulate output solutions in a form more suitable to the solution of engineering type problems.

The Covariance Statistical Model was used to successfully formulate empirical correlation equations which relate vehicle aftend drag with the complicated external flow field, the propulsion system, and the aircraft design parameters.

The program and supporting subroutines are written in FORTRAN for use on a CDC 6600 Computer. The appendices of this report include a sample problem input/output listing, computer program listing, a program user's guide, and the Analysis-of-Covariance statistical model.

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## TABLE OF CONTENTS

	<u>Page No.</u>
SUMMARY . . . . .	1
INTRODUCTION . . . . .	5
METHODOLOGY . . . . .	6
DISCUSSION . . . . .	7
PROGRAM DESCRIPTION . . . . .	7
PROGRAM STRUCTURE . . . . .	8
PROGRAM MODIFICATIONS . . . . .	10
CONCLUSIONS . . . . .	12
REFERENCES . . . . .	13
APPENDIX A:    SAMPLE INPUT/OUTPUT LISTING . . . . .	A-1
APPENDIX B:    COMPUTER PROGRAM LISTING . . . . .	B-1
APPENDIX C:    COMPUTER PROGRAM USER'S GUIDE . . . . .	C-1
APPENDIX D:    COMPUTATIONAL PROCEDURE . . . . .	D-1

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INTRODUCTION

Modifications to a U.C.L.A. Biomedical Mathematics Department Analysis-of-Covariance (BMD04V) Statistical Computer Program (reference (a)) were developed by NAVAIRDEVGEN to successfully formulate empirical correlation equations which relate aircraft aftend drag with external flow field parameters and aircraft design parameters. The modifications to the computer code were developed during a NAVAIR sponsored Aft Fuselage Twin Nozzle Fighter-Type Aircraft Drag Project. The project involved the correlation of a large data base of aircraft fuselage drag measurements obtained from various wind tunnel fighter models which contained geometric and flight performance variations.

This report will describe the unique capabilities of the Covariance Analyses and the extensive improvements to the original computer code which make it a valuable tool for use in analyzing a variety of engineering problems.

METHODOLOGY

In general, the Analysis-of-Covariance statistical model can be applied to any engineering problem for which a data base of dependent and independent variables exists and for which a requirement exists to relate the variables through a set of empirical correlation equations. The Analysis-of-Covariance method is not a traditional multiple regression method although it can be degraded to provide all the output normally associated with a total regression. The Analysis-of-Covariance method permits the separation of covariate (independent variables) to allow correlation of the variate (dependent variable) with a single covariate. For example, the method can be used to independently synthesize the functional relationships between each and every independent variable and the related multidependent functional variable. A multiple regression method cannot filter out the multiple effects on a dependent variable which are contributed by several related independent variables. A multiple regression method can be used when only one independent variable exists or when the interdependence of the independent variables is known a priori.

A complete and detailed mathematical formulation of the Analysis-of-Covariance model can be found in any standard statistical text (i.e., references (b) and (c)). For the sake of completeness, a description of the computational procedure is provided in Appendix D.

## DISCUSSION

### PROGRAM DESCRIPTION

The computer program described in this report can be utilized to compute Analysis-of-Covariance information for one Analysis-of-Variance variable with multiple covariates and unequal treatment group sizes with forecast capability. The statistical method permits the user to designate treatment groups or subdivisions of case input data which demonstrate certain user defined levels consistent with the reduction of scatter of the variate or dependent variable. In addition, covariate parameters may be defined which are common to each treatment group and which reduce the scatter of the variate in each group. The proper covariate parameters for a given problem are those which filter out the common effects and increase the predominant dependence within the treatment groups. The provision for the subdivision of case data into treatment groups provides the Covariance Analysis with the unique capability to synthesize the functional relationship of each independent variable on the dependent variable. The program provides the capability of partitioning the case data into treatment groups through user defined boolean expressions, thus simplifying the subdivision of large input data problems.

The program also provides the capability of transformation of the covariate parameters into complex multivariable functions which may be instrumental in the reduction of the variance of the dependent variable. The term transgeneration is used to include transformations of input variables and creation of new variables prior to the computations performed by the program. By use of the transgeneration option, new variables may be created by performing algebraic, trigonometric, exponential, and logarithmic transformations on the original variables. These variables may either replace the old variables or they may be entirely new variables. For example, suppose that there are two original variables, variable 1 and variable 2. Then a third variable, variable 3, could be created by letting variable 3 be the square root of variable 2.

The program provides output of cross correlation matrices through which an indication can be formed of the independence of each of the covariate parameters. The capability of analyzing the cross correlation between covariate parameters permits the user to select covariates with the least interdependence and thus increase the accuracy of the statistical model. For example, if two covariates are highly correlated, the increased probability exists that either the covariates should be combined or one of the covariates should be removed from the analysis. The cross correlation matrices thus provide a means of filtering candidate covariates for inclusion in the Covariance Analysis.

The Analysis-of-Covariance program provides tables of covariance coefficients, standard errors, computed T-values, and confidence levels. A unique mathematical routine within the program structure calculates the confidence levels for each covariate based on the calculated T-values

and degrees of freedom. This eliminates the need for use of detailed statistical tables which is common for all other statistical methods. The confidence levels permit the user to evaluate the relative merit of each covariate parameter in reducing the total variation and thus assist in synthesizing the unique empirical correlation parameters.

Another unique feature provides output of tables of residual analysis which contain for each case: the variate, the estimated variate based on the covariate analysis, the residual and the percent variation in each treatment group. The residual tables are typically plotted, using any standard existing interactive computer technique, to obtain the scatter of data in each treatment group about the mean of the variates. The graphic residual variation provides a definitive representation of the precision attained in the selection of covariates and the trend of any errors in the analysis.

The program also provides the capability of introducing forecast data into the previously defined statistical model in order to test the precision accuracy. This procedure is highly desirable with any statistical analysis, for the introduction of data which is independent of the data utilized to develop the model equations will provide a definitive evaluation of the previous analysis.

A sample input data problem which demonstrates most of the computer program options is included in Appendix A together with the resultant output formulation. A complete listing of the main computer program and the associated subroutine subprograms is presented in Appendix B. A program user's guide (see Appendix C) provides a detailed description of the available program options and defines the sequence and function of each of the program control directives.

#### PROGRAM STRUCTURE

The Analysis-of-Covariance Computer Code consists of a main program and eight subroutines written in Fortran language and compatible with the NAVAIRDEVEN CDC 6600 series computer systems. The computer code listing comprising the Covariance Analysis is included with this report in Appendix B.

#### Program BMD04V

The main program reads the program control cards, reads the input data cards, checks the problem limitations, calculates and prints some of the output values, and controls the calls to the subroutine subprograms.

#### Subroutine MINV

The subroutine MINV is utilized by the main program to invert the cross-product data matrices associated with the least-square solution of

the Total, Treatment, and Error formulations of the statistical models using the standard Gauss-Jordan method.

#### Subroutine GRPSEL

The subroutine GRPSEL assigns group designations to each input data case consistent with user defined boolean selection criteria. If the optional boolean selection feature is being used to place cases in their treatment groups, group definition cards are prepared as shown in the user's guide of Appendix C. A diagnostic message is printed for illegal user defined operations.

#### Subroutine PATTY2

Subroutine PATTY2 prints the data matrices associated with the correlations, cross-products, and inverse of the cross-products for the Total, Treatment, and Error analyses. The routine also prints a diagnostic message for singular inverse cross-product matrices.

#### Subroutine TG41

Subroutine TG41 performs the various user defined transgenerations of input data. By use of the Transgeneration Cards (see User's Guide, Appendix C), new variables may be created by performing algebraic, trigonometric, exponential, and logarithmic transformations on the original variables. The transgeneration codes permit the formulation of any user defined multiple-variable functional relationship. The routine also prints diagnostic messages for violations of transgeneration code restrictions.

#### Subroutine TPWD

This subroutine assigns user specified BCD tape number designations to the main program for exchange and storage of case input data. A diagnostic message is printed for illegal user tape number designations.

#### Subroutine WRT

The subroutine WRT prints most of the output tables and computational results developed by the main program and the other subroutines.

#### Subroutine CONF

The subroutine CONF computes the confidence level associated with each input T-value for the corresponding degrees-of-freedom. The routine eliminates the need for detailed statistical tables by providing a rapid calculation of the Student's T-value at the appropriate confidence level for each covariate parameter.

Subroutine LDAY

The subroutine LDAY calculates and prints the current run-time day, month, and year at the top of each page of output.

PROGRAM MODIFICATIONS

A standard Analysis-of-Covariance computer program with multiple covariates has been modified to include data forecast capability, covariate correlation and residual analyses for Total, Treatment, and Error groups. The resulting statistical method represents a more sophisticated analytical tool with increased computational accuracy.

Major modifications to the original computer program were effected in the following categories:

Input/Output Enhancements

1. Input control cards printed in output.
2. Input Data cards printed in output with case and group numbers.
3. Output values printed in scientific notation.
4. Added assigned group number table for null contingency.
5. Added output paging to report style.
6. Added transgenerated data output.

Computational Enhancements

1. Added more efficient matrix inversion method.
2. Added singular matrix definition and diagnostic message.
3. Added covariate correlation matrices.
4. Added forecast data capability.
5. Added estimates of standard deviation.
6. Added confidence levels for computed T-values.
7. Added residual analyses.

8. Added maximum residual analyses.
9. Added table of intercepts.
10. Added table of overall covariate means.
11. Added table of sum-squares within.
12. Removed restrictions on covariate storage.

### CONCLUSIONS

The Analysis-of-Covariance statistical method can be applied to any engineering problem for which a data base of dependent and independent variables exists and for which a requirement exists to relate the variables through a set of empirical correlation equations.

The Covariance statistical method has been used with success, for the past 7 years, at the NAVAIRDEVCON to formulate empirical correlation equations for a wide variety of engineering problems. The statistical method has more capability than the traditional multiple regression procedure and is recommended whenever a correlation is required of qualitative and quantitative parameters.

R E F E R E N C E S

- (a) Dixon, W. J., "(BMD) Biomedical Computer Programs," University of California Press, Los Angeles, 1973.
- (b) Bennett, Carl A., and Franklin, Norman L., "Statistical Analysis In Chemistry and the Chemical Industry," Wiley, 1954.
- (c) Scheffe', Henry, "The Analysis of Variance," Wiley, 1959.

A P P E N D I X    A

ANALYSIS OF COVARIANCE COMPUTER PROGRAM  
SAMPLE INPUT/OUTPUT LISTING

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TABLE OF CONTENTS

	<u>Page No.</u>
DESCRIPTION . . . . .	A-4
SAMPLE INPUT CASE . . . . .	A-6
SAMPLE OUTPUT CASE . . . . .	A-14

## DESCRIPTION

The sample case presented in this section is representative of the engineering problems that can be analyzed using the Analysis-of-Covariance statistical method. The example represents a typical aircraft optimum Mach number climb characteristic (dependent variate parameter) in terms of altitude, weight, drag, and ambient temperature (independent covariate parameters). The covariate parameters are related to the variate through partitioning using the treatment groups designators and transgenerated in terms of the multifunctional covariates. This example illustrates the utility of the Covariance Analysis to detect and synthesize the functional relationships between independent and dependent variables.

The input cards for the sample case are presented on pages A-6 through A-13. The first page shows the sample Problem card, the Trans-generation cards, the Group Definition cards, the Label card, the Format card, and the beginning of the variate and covariate parameters. The full list of input variables is continued through page A-13 where the input is terminated with the Covariate Selection card and the finish card.

The output solution for the sample case is presented on pages A-14 through A-128. The output includes the following information: the group means, the correlation matrices, the error analyses, the covariate coefficients, the residual analyses, and the standard deviations. The Analysis-of-Covariance table (page A-59) presents the overall accuracy of the correlations for both the Total and Within analyses. The square root of the mean-square values, which are presented in the table, provides the standard error of the statistical models.

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.4205	31000.00090000.000	100.000	0.000
.4271	32000.00090000.000	100.000	0.000
.4338	33000.00090000.000	100.000	0.000
.4410	34000.00090000.000	100.000	0.000
.4488	35000.00090000.000	100.000	0.000
.2847	190.476100000.000	100.000	0.000
.3052	5000.000100000.000	100.000	0.000
.3229	10000.000100000.000	100.000	0.000
.3432	15000.000100000.000	100.000	0.000
.3670	20000.000100000.000	100.000	0.000
.3943	25000.000100000.000	100.000	0.000
.4259	30000.000100000.000	100.000	0.000
.4327	31000.000100000.000	100.000	0.000
.4396	32000.000100000.000	100.000	0.000
.2903	0.000120000.000	100.000	0.000
.3126	5000.000120000.000	100.000	0.000
.3345	10000.000120000.000	100.000	0.000
.3575	15000.000120000.000	100.000	0.000
.3845	20000.000120000.000	100.000	0.000
.4153	25000.000120000.000	100.000	0.000
.4216	26000.000120000.000	100.000	0.000
.4283	27000.000120000.000	100.000	0.000
.3020	0.000145000.000	100.000	0.000
.3250	5000.000145000.000	100.000	0.000
.3496	10000.000145000.000	100.000	0.000
.3760	15000.000145000.000	100.000	0.000
.4065	20000.000145000.000	100.000	0.000
.4126	21000.000145000.000	100.000	0.000
.2520	0.00070000.000	200.000	0.000
.2647	5000.00070000.000	200.000	0.000
.2782	10000.00070000.000	200.000	0.000
.2939	15000.00070000.000	200.000	0.000
.3116	20000.00070000.000	200.000	0.000
.3340	25000.00070000.000	200.000	0.000
.3577	30000.00070000.000	200.000	0.000
.3858	35000.00070000.000	200.000	0.000

# NADC-77036-30

.3908	36000.000	70000.000	200.000	0.000
.3962	37000.000	70000.000	200.000	0.000
.4019	38000.000	70000.000	200.000	0.000
.2585	0.000	90000.000	200.000	0.000
.2734	5000.000	90000.000	200.000	0.000
.2897	10000.000	90000.000	200.000	0.000
.3083	15000.000	90000.000	200.000	0.000
.3298	20000.000	90000.000	200.000	0.000
.3539	25000.000	90000.000	200.000	0.000
.3822	30000.000	90000.000	200.000	0.000
.3884	31000.000	90000.000	200.000	0.000
.3948	32000.000	90000.000	200.000	0.000
.2619	0.000	100000.000	200.000	0.000
.2783	5000.000	100000.000	200.000	0.000
.2956	10000.000	100000.000	200.000	0.000
.3160	15000.000	100000.000	200.000	0.000
.3382	20000.000	100000.000	200.000	0.000
.3639	25000.000	100000.000	200.000	0.000
.3696	26000.000	100000.000	200.000	0.000
.3754	27000.000	100000.000	200.000	0.000
.3815	28000.000	100000.000	200.000	0.000
.3878	29000.000	100000.000	200.000	0.000
.2691	0.000	120000.000	200.000	0.000
.2887	5000.000	120000.000	200.000	0.000
.3083	10000.000	120000.000	200.000	0.000
.3104	15000.000	120000.000	200.000	0.000
.3550	20000.000	120000.000	200.000	0.000
.3605	21000.000	120000.000	200.000	0.000
.3661	22000.000	120000.000	200.000	0.000
.3719	23000.000	120000.000	200.000	0.000
.3779	24000.000	120000.000	200.000	0.000
.2821	142.857	145000.000	200.000	0.000
.3033	5000.000	145000.000	200.000	0.000
.3236	10000.000	145000.000	200.000	0.000
.3477	15000.000	145000.000	200.000	0.000
.3529	16000.000	145000.000	200.000	0.000
.3584	17000.000	145000.000	200.000	0.000
.3641	18000.000	145000.000	200.000	0.000
.3057	0.000	70000.000	-50.000	18.000
.3284	5000.000	70000.000	-50.000	18.000
.3476	10000.000	70000.000	-50.000	18.000
.3715	15335.714	70000.000	-50.000	18.000
.3930	20000.000	70000.000	-50.000	18.000
.4240	25119.048	70000.000	-50.000	18.000
.4592	30000.000	70000.000	-50.000	18.000
.4919	35000.000	70000.000	-50.000	18.000
.5292	40000.000	70000.000	-50.000	18.000
.5419	41000.000	70000.000	-50.000	18.000
.5488	42000.000	70000.000	-50.000	18.000
.5498	43000.000	70000.000	-50.000	18.000
.3094	0.000	90000.000	-50.000	18.000
.3344	5000.000	90000.000	-50.000	18.000
.3620	10000.000	90000.000	-50.000	18.000
.3920	15000.000	90000.000	-50.000	18.000
.4220	20000.000	90000.000	-50.000	18.000
.4503	25000.000	90000.000	-50.000	18.000
.4854	30000.000	90000.000	-50.000	18.000
.5325	35000.000	90000.000	-50.000	18.000
.5439	36000.000	90000.000	-50.000	18.000
.5494	37000.000	90000.000	-50.000	18.000

.5502	38000.000	90000.000	-50.000	18.000
.3174	0.000	100000.000	-50.000	18.000
.3455	5000.000	100000.000	-50.000	18.000
.3743	10000.000	100000.000	-50.000	18.000
.4040	15000.000	100000.000	-50.000	18.000
.4350	20476.190	100000.000	-50.000	18.000
.4650	25476.190	100000.000	-50.000	18.000
.5026	30000.000	100000.000	-50.000	18.000
.5495	35000.000	100000.000	-50.000	18.000
.5498	36000.000	100000.000	-50.000	18.000
.3364	0.000	120000.000	-50.000	18.000
.3647	5000.000	120000.000	-50.000	18.000
.3935	10000.000	120000.000	-50.000	18.000
.4180	14583.333	120000.000	-50.000	18.000
.4480	19464.286	120000.000	-50.000	18.000
.4892	25000.000	120000.000	-50.000	18.000
.4987	26000.000	120000.000	-50.000	18.000
.5068	27000.000	120000.000	-50.000	18.000
.5156	28000.000	120000.000	-50.000	18.000
.5257	29000.000	120000.000	-50.000	18.000
.5361	30000.000	120000.000	-50.000	18.000
.3532	0.000	145000.000	-50.000	18.000
.3807	5000.000	145000.000	-50.000	18.000
.4070	10000.000	145000.000	-50.000	18.000
.4382	15000.000	145000.000	-50.000	18.000
.4759	20000.000	145000.000	-50.000	18.000
.4854	21000.000	145000.000	-50.000	18.000
.4939	22000.000	145000.000	-50.000	18.000
.5022	23000.000	145000.000	-50.000	18.000
.5103	24000.000	145000.000	-50.000	18.000
.5189	25000.000	145000.000	-50.000	18.000
.2848	0.000	70000.000	0.000	18.000
.3048	5000.000	70000.000	0.000	18.000
.3275	10178.571	70000.000	0.000	18.000
.3474	15000.000	70000.000	0.000	18.000
.3734	20000.000	70000.000	0.000	18.000
.3985	25000.000	70000.000	0.000	18.000
.4261	30000.000	70000.000	0.000	18.000
.4579	35238.095	70000.000	0.000	18.000
.4896	40000.000	70000.000	0.000	18.000
.4965	41000.000	70000.000	0.000	18.000
.2948	0.000	90000.000	0.000	18.000
.3197	5000.000	90000.000	0.000	18.000
.3445	10000.000	90000.000	0.000	18.000
.3664	15000.000	90000.000	0.000	18.000
.3913	20000.000	90000.000	0.000	18.000
.4213	25000.000	90000.000	0.000	18.000
.4521	30000.000	90000.000	0.000	18.000
.4912	35000.000	90000.000	0.000	18.000
.4981	36000.000	90000.000	0.000	18.000
.3015	0.000	100000.000	0.000	18.000
.3269	5000.000	100000.000	0.000	18.000
.3505	10000.000	100000.000	0.000	18.000
.3736	15000.000	100000.000	0.000	18.000
.4019	20000.000	100000.000	0.000	18.000
.4310	25000.000	100000.000	0.000	18.000
.4652	30000.000	100000.000	0.000	18.000
.4732	31000.000	100000.000	0.000	18.000
.4816	32000.000	100000.000	0.000	18.000
.4901	33000.000	100000.000	0.000	18.000

# NADC-77036-30

.3116	0.000120000.000	0.000	18.000
.3365	5000.000120000.000	0.000	18.000
.3633	10000.000120000.000	0.000	18.000
.3909	15000.000120000.000	0.000	18.000
.4195	20000.000120000.000	0.000	18.000
.4522	25000.000120000.000	0.000	18.000
.4897	26000.000120000.000	0.000	18.000
.4676	27000.000120000.000	0.000	18.000
.4760	28000.000120000.000	0.000	18.000
.3263	0.000145000.000	0.000	18.000
.3533	5000.000145000.000	0.000	18.000
.3810	10000.000145000.000	0.000	18.000
.4100	15000.000145000.000	0.000	18.000
.4418	20000.000145000.000	0.000	18.000
.4490	21000.000145000.000	0.000	18.000
.4565	22000.000145000.000	0.000	18.000
.2613	0.00070000.000	100.000	18.000
.2780	5000.00070000.000	100.000	18.000
.2955	10000.00070000.000	100.000	18.000
.3128	15000.00070000.000	100.000	18.000
.3331	20000.00070000.000	100.000	18.000
.3547	25000.00070000.000	100.000	18.000
.3806	30000.00070000.000	100.000	18.000
.4117	35000.00070000.000	100.000	18.000
.4171	36000.00070000.000	100.000	18.000
.4230	37000.00070000.000	100.000	18.000
.4292	38000.00070000.000	100.000	18.000
.4356	39000.00070000.000	100.000	18.000
.2711	0.00090000.000	100.000	18.000
.2892	5000.00090000.000	100.000	18.000
.3076	10000.00090000.000	100.000	18.000
.3278	15000.00090000.000	100.000	18.000
.3501	20000.00090000.000	100.000	18.000
.3761	25000.00090000.000	100.000	18.000
.4072	30000.00090000.000	100.000	18.000
.4139	31000.00090000.000	100.000	18.000
.4212	32000.00090000.000	100.000	18.000
.4284	33000.00090000.000	100.000	18.000
.2745	0.000100000.000	100.000	18.000
.2956	5000.000100000.000	100.000	18.000
.3141	10000.000100000.000	100.000	18.000
.3351	15000.000100000.000	100.000	18.000
.3590	20000.000100000.000	100.000	18.000
.3874	25000.000100000.000	100.000	18.000
.3936	26000.000100000.000	100.000	18.000
.4000	27000.000100000.000	100.000	18.000
.4066	28000.000100000.000	100.000	18.000
.4135	29000.000100000.000	100.000	18.000
.4205	30000.000100000.000	100.000	18.000
.2825	0.000120000.000	100.000	18.000
.3044	5000.000120000.000	100.000	18.000
.3265	10000.000120000.000	100.000	18.000
.3499	15000.000120000.000	100.000	18.000
.3773	20000.000120000.000	100.000	18.000
.3833	21000.000120000.000	100.000	18.000
.3895	22000.000120000.000	100.000	18.000
.3959	23000.000120000.000	100.000	18.000
.4026	24000.000120000.000	100.000	18.000
.4095	25000.000120000.000	100.000	18.000
.2929	0.000145000.000	100.000	18.000

.3172	5000.000145000.000	100.000	18.000
.3424	10000.000145000.000	100.000	18.000
.3691	15000.000145000.000	100.000	18.000
.3750	16000.000145000.000	100.000	18.000
.3811	17000.000145000.000	100.000	18.000
.3873	18000.000145000.000	100.000	18.000
.3937	19000.000145000.000	100.000	18.000
.2456	0.00070000.000	200.000	18.000
.2555	5000.00070000.000	200.000	18.000
.2705	10000.00070000.000	200.000	18.000
.2863	15000.00070000.000	200.000	18.000
.3042	20000.00070000.000	200.000	18.000
.3253	25000.00070000.000	200.000	18.000
.3506	30000.00070000.000	200.000	18.000
.3797	35000.00070000.000	200.000	18.000
.3849	36000.00070000.000	200.000	18.000
.3905	37000.00070000.000	200.000	18.000
.2521	0.00090000.000	200.000	18.000
.2651	5000.00090000.000	200.000	18.000
.2819	10000.00090000.000	200.000	18.000
.3009	15000.00090000.000	200.000	18.000
.3228	20000.00090000.000	200.000	18.000
.3472	25000.00090000.000	200.000	18.000
.3761	30000.00090000.000	200.000	18.000
.3824	31000.00090000.000	200.000	18.000
.2557	0.000100000.000	200.000	18.000
.2701	5000.000100000.000	200.000	18.000
.2881	10000.000100000.000	200.000	18.000
.3087	15000.000100000.000	200.000	18.000
.3223	20000.000100000.000	200.000	18.000
.3576	25000.000100000.000	200.000	18.000
.3634	26000.000100000.000	200.000	18.000
.3694	27000.000100000.000	200.000	18.000
.3756	28000.000100000.000	200.000	18.000
.2634	0.000120000.000	200.000	18.000
.2807	5000.000120000.000	200.000	18.000
.3012	10000.000120000.000	200.000	18.000
.3238	15000.000120000.000	200.000	18.000
.3490	20000.000120000.000	200.000	18.000
.3545	21000.000120000.000	200.000	18.000
.3602	22000.000120000.000	200.000	18.000
.2737	0.000145000.000	200.000	18.000
.2967	5000.000145000.000	200.000	18.000
.3173	10000.000145000.000	200.000	18.000
.3419	15000.000145000.000	200.000	18.000
.3475	16000.000145000.000	200.000	18.000
.2936	0.00070000.000	-50.000	36.000
.3129	5000.00070000.000	-50.000	36.000
.3347	10000.00070000.000	-50.000	36.000
.3605	15476.19070000.000	-50.000	36.000
.3864	20000.00070000.000	-50.000	36.000
.4193	25000.00070000.000	-50.000	36.000
.4488	30000.00070000.000	-50.000	36.000
.4844	35000.00070000.000	-50.000	36.000
.5174	40000.00070000.000	-50.000	36.000
.5285	41000.00070000.000	-50.000	36.000
.5401	42000.00070000.000	-50.000	36.000
.3018	0.00090000.000	-50.000	36.000
.3281	5000.00090000.000	-50.000	36.000
.3556	10000.00090000.000	-50.000	36.000

# NADC-77036-30

.3846	15000.000	90000.000	-50.000	36.000
.4131	20000.000	90000.000	-50.000	36.000
.4395	25000.000	90000.000	-50.000	36.000
.4778	30000.000	90000.000	-50.000	36.000
.5189	35000.000	90000.000	-50.000	36.000
.5315	36000.000	90000.000	-50.000	36.000
.3108	0.000	100000.000	-50.000	36.000
.3382	5000.000	100000.000	-50.000	36.000
.3666	10000.000	100000.000	-50.000	36.000
.3954	15000.000	100000.000	-50.000	36.000
.4210	19761.905	100000.000	-50.000	36.000
.4528	25000.000	100000.000	-50.000	36.000
.4953	30000.000	100000.000	-50.000	36.000
.5054	31000.000	100000.000	-50.000	36.000
.5147	32000.000	100000.000	-50.000	36.000
.5232	33000.000	100000.000	-50.000	36.000
.5332	34000.000	100000.000	-50.000	36.000
.3263	0.000	120000.000	-50.000	36.000
.3538	5000.000	120000.000	-50.000	36.000
.3820	10000.000	120000.000	-50.000	36.000
.4092	15000.000	120000.000	-50.000	36.000
.4405	20000.000	120000.000	-50.000	36.000
.4796	25000.000	120000.000	-50.000	36.000
.4892	26000.000	120000.000	-50.000	36.000
.4992	27000.000	120000.000	-50.000	36.000
.5081	28000.000	120000.000	-50.000	36.000
.5176	29000.000	120000.000	-50.000	36.000
.3293	0.000	145000.000	-50.000	36.000
.3693	5000.000	145000.000	-50.000	36.000
.3997	10000.000	145000.000	-50.000	36.000
.4302	15000.000	145000.000	-50.000	36.000
.4671	20000.000	145000.000	-50.000	36.000
.4761	21000.000	145000.000	-50.000	36.000
.4856	22000.000	145000.000	-50.000	36.000
.2747	0.000	70000.000	0.000	36.000
.2919	5000.000	70000.000	0.000	36.000
.3168	10000.000	70000.000	0.000	36.000
.3400	15000.000	70000.000	0.000	36.000
.3632	20000.000	70000.000	0.000	36.000
.3879	24657.143	70000.000	0.000	36.000
.4187	30000.000	70000.000	0.000	36.000
.4523	35000.000	70000.000	0.000	36.000
.4580	36000.000	70000.000	0.000	36.000
.4641	37000.000	70000.000	0.000	36.000
.4704	38000.000	70000.000	0.000	36.000
.4770	39000.000	70000.000	0.000	36.000
.4838	40000.000	70000.000	0.000	36.000
.2884	0.000	90000.000	0.000	36.000
.3109	5000.000	90000.000	0.000	36.000
.3341	10000.000	90000.000	0.000	36.000
.3559	15000.000	90000.000	0.000	36.000
.3820	20000.000	90000.000	0.000	36.000
.4123	25000.000	90000.000	0.000	36.000
.4452	30000.000	90000.000	0.000	36.000
.4526	31000.000	90000.000	0.000	36.000
.4601	32000.000	90000.000	0.000	36.000
.4685	33000.000	90000.000	0.000	36.000
.4770	34000.000	90000.000	0.000	36.000
.4855	35000.000	90000.000	0.000	36.000
.2942	0.000	100000.000	0.000	36.000
.3178	5000.000	100000.000	0.000	36.000
.3399	10000.000	100000.000	0.000	36.000
.3645	15000.000	100000.000	0.000	36.000
.3923	20000.000	100000.000	0.000	36.000
.4233	25000.000	100000.000	0.000	36.000
.4587	30000.000	100000.000	0.000	36.000
.4668	31000.000	100000.000	0.000	36.000
.4754	32000.000	100000.000	0.000	36.000
.3026	0.000	120000.000	0.000	36.000
.3287	5000.000	120000.000	0.000	36.000
.3546	10000.000	120000.000	0.000	36.000
.3817	15000.000	120000.000	0.000	36.000
.4125	20000.000	120000.000	0.000	36.000
.4456	25000.000	120000.000	0.000	36.000
.4532	26000.000	120000.000	0.000	36.000
.3163	0.000	145000.000	0.000	36.000
.3437	5000.000	145000.000	0.000	36.000
.3730	10000.000	145000.000	0.000	36.000
.4032	15000.000	145000.000	0.000	36.000
.4091	16000.000	145000.000	0.000	36.000
.4152	17000.000	145000.000	0.000	36.000
.4216	18000.000	145000.000	0.000	36.000
.4281	19000.000	145000.000	0.000	36.000
.4351	20000.000	145000.000	0.000	36.000
.2542	0.000	70000.000	100.000	36.000
.2690	5000.000	70000.000	100.000	36.000
.2848	10000.000	70000.000	100.000	36.000
.3036	15000.000	70000.000	100.000	36.000
.3241	20000.000	70000.000	100.000	36.000
.3464	25000.000	70000.000	100.000	36.000
.3727	30000.000	70000.000	100.000	36.000
.4046	35000.000	70000.000	100.000	36.000
.4104	36000.000	70000.000	100.000	36.000
.4166	37000.000	70000.000	100.000	36.000
.4232	38000.000	70000.000	100.000	36.000
.2623	0.000	90000.000	100.000	36.000
.2795	5000.000	90000.000	100.000	36.000
.2983	10000.000	90000.000	100.000	36.000
.3197	15000.000	90000.000	100.000	36.000
.3423	20000.000	90000.000	100.000	36.000
.3687	25000.000	90000.000	100.000	36.000
.4006	30000.000	90000.000	100.000	36.000
.4078	31000.000	90000.000	100.000	36.000
.4152	32000.000	90000.000	100.000	36.000
.2667	0.000	100000.000	100.000	36.000
.2846	5000.000	100000.000	100.000	36.000
.3053	10000.000	100000.000	100.000	36.000
.3274	15000.000	100000.000	100.000	36.000
.3515	20000.000	100000.000	100.000	36.000
.3802	25000.000	100000.000	100.000	36.000
.3865	26000.000	100000.000	100.000	36.000
.3931	27000.000	100000.000	100.000	36.000
.4000	28000.000	100000.000	100.000	36.000
.2754	0.000	120000.000	100.000	36.000
.2953	5000.000	120000.000	100.000	36.000
.3191	10000.000	120000.000	100.000	36.000
.3429	15000.000	120000.000	100.000	36.000
.3704	20000.000	120000.000	100.000	36.000
.3764	21000.000	120000.000	100.000	36.000
.3826	22000.000	120000.000	100.000	36.000

# NADC-77036-30

.3891	23000.000120000.000	100.000	36.000
.2868	0.000145000.000	100.000	36.000
.3096	5000.000145000.000	100.000	36.000
.3256	10000.000145000.000	100.000	36.000
.3629	15000.000145000.000	100.000	36.000
.3688	16000.000145000.000	100.000	36.000
.2363	0.00070000.000	200.000	36.000
.2471	5000.00070000.000	200.000	36.000
.2622	10000.00070000.000	200.000	36.000
.2788	15000.00070000.000	200.000	36.000
.2973	20000.00070000.000	200.000	36.000
.3187	25000.00070000.000	200.000	36.000
.3438	30000.00070000.000	200.000	36.000
.3733	35000.00070000.000	200.000	36.000
.3787	36000.00070000.000	200.000	36.000
.2439	0.00090000.000	200.000	36.000
.2572	5000.00090000.000	200.000	36.000
.2743	10000.00090000.000	200.000	36.000
.2939	15000.00090000.000	200.000	36.000
.3165	20000.00090000.000	200.000	36.000
.3410	25000.00090000.000	200.000	36.000
.3464	26000.00090000.000	200.000	36.000
.3519	27000.00090000.000	200.000	36.000
.3577	28000.00090000.000	200.000	36.000
.3638	29000.00090000.000	200.000	36.000
.2479	0.000100000.000	200.000	36.000
.2625	5000.000100000.000	200.000	36.000
.2809	10000.000100000.000	200.000	36.000
.3018	15000.000100000.000	200.000	36.000
.3254	20000.000100000.000	200.000	36.000
.3517	25000.000100000.000	200.000	36.000
.3575	26000.000100000.000	200.000	36.000
.2564	0.000120000.000	200.000	36.000
.2736	5000.000120000.000	200.000	36.000
.2943	10000.000120000.000	200.000	36.000
.3178	15000.000120000.000	200.000	36.000
.3227	16000.000120000.000	200.000	36.000
.3278	17000.000120000.000	200.000	36.000
.3328	18000.000120000.000	200.000	36.000
.3378	19000.000120000.000	200.000	36.000
.3432	20000.000120000.000	200.000	36.000
.2675	0.000145000.000	200.000	36.000
.2875	5000.000145000.000	200.000	36.000
.3115	10000.000145000.000	200.000	36.000
.3162	11000.000145000.000	200.000	36.000
.3211	12000.000145000.000	200.000	36.000
.3260	13000.000145000.000	200.000	36.000
.3156	0.00070000.000	-50.000	-18.000
.3465	5416.66770000.000	-50.000	-18.000
.3750	10357.14370000.000	-50.000	-18.000
.3965	15000.00070000.000	-50.000	-18.000
.4116	20000.00070000.000	-50.000	-18.000
.4374	25000.00070000.000	-50.000	-18.000
.4734	30000.00070000.000	-50.000	-18.000
.5211	35000.00070000.000	-50.000	-18.000
.5474	40000.00070000.000	-50.000	-18.000
.5496	41000.00070000.000	-50.000	-18.000
.5502	42000.00070000.000	-50.000	-18.000
.5505	43000.00070000.000	-50.000	-18.000
.5543	44000.00070000.000	-50.000	-18.000
.5598	45000.00070000.000	-50.000	-18.000
.3165	0.00090000.000	-50.000	-18.000
.3504	5000.00090000.000	-50.000	-18.000
.3818	10000.00090000.000	-50.000	-18.000
.4050	15000.00090000.000	-50.000	-18.000
.4356	20000.00090000.000	-50.000	-18.000
.4701	25000.00090000.000	-50.000	-18.000
.5100	30000.00090000.000	-50.000	-18.000
.5482	35000.00090000.000	-50.000	-18.000
.5495	36000.00090000.000	-50.000	-18.000
.5500	37000.00090000.000	-50.000	-18.000
.5507	38000.00090000.000	-50.000	-18.000
.5555	39000.00090000.000	-50.000	-18.000
.5611	40000.00090000.000	-50.000	-18.000
.3200	0.000100000.000	-50.000	-18.000
.3545	5000.000100000.000	-50.000	-18.000
.3882	10000.000100000.000	-50.000	-18.000
.4170	15000.000100000.000	-50.000	-18.000
.4487	20000.000100000.000	-50.000	-18.000
.4808	25000.000100000.000	-50.000	-18.000
.5217	30000.000100000.000	-50.000	-18.000
.5500	35000.000100000.000	-50.000	-18.000
.5509	36000.000100000.000	-50.000	-18.000
.5566	37000.000100000.000	-50.000	-18.000
.5629	38000.000100000.000	-50.000	-18.000
.3346	0.000120000.000	-50.000	-18.000
.3707	5000.000120000.000	-50.000	-18.000
.4078	10000.000120000.000	-50.000	-18.000
.4378	15000.000120000.000	-50.000	-18.000
.4672	20000.000120000.000	-50.000	-18.000
.5026	25000.000120000.000	-50.000	-18.000
.5488	30000.000120000.000	-50.000	-18.000
.5489	31000.000120000.000	-50.000	-18.000
.5507	32000.000120000.000	-50.000	-18.000
.5547	33000.000120000.000	-50.000	-18.000
.5608	34000.000120000.000	-50.000	-18.000
.3455	0.000145000.000	-50.000	-18.000
.3857	5000.000145000.000	-50.000	-18.000
.4254	10000.000145000.000	-50.000	-18.000
.4555	14523.810145000.000	-50.000	-18.000
.4925	20000.000145000.000	-50.000	-18.000
.5342	25000.000145000.000	-50.000	-18.000
.5438	26000.000145000.000	-50.000	-18.000
.5494	27000.000145000.000	-50.000	-18.000
.5501	28000.000145000.000	-50.000	-18.000
.2925	0.00070000.000	0.000	-18.000
.3190	5000.00070000.000	0.000	-18.000
.3473	10000.00070000.000	0.000	-18.000
.3665	14464.28670000.000	0.000	-18.000
.3885	20000.00070000.000	0.000	-18.000
.4140	25238.09570000.000	0.000	-18.000
.4415	30000.00070000.000	0.000	-18.000
.4721	35000.00070000.000	0.000	-18.000
.5066	40000.00070000.000	0.000	-18.000
.5159	41000.00070000.000	0.000	-18.000
.5240	42000.00070000.000	0.000	-18.000
.5315	43000.00070000.000	0.000	-18.000
.5385	44000.00070000.000	0.000	-18.000
.3005	0.00090000.000	0.000	-18.000
.3310	5000.00090000.000	0.000	-18.000

# NADC-77036-30

.3601	10000.000	90000.000	0.000	-18.000
.3867	15000.000	90000.000	0.000	-18.000
.4112	20000.000	90000.000	0.000	-18.000
.4354	25000.000	90000.000	0.000	-18.000
.4665	30000.000	90000.000	0.000	-18.000
.5086	35000.000	90000.000	0.000	-18.000
.5182	36000.000	90000.000	0.000	-18.000
.5259	37000.000	90000.000	0.000	-18.000
.5328	38000.000	90000.000	0.000	-18.000
.5402	39000.000	90000.000	0.000	-18.000
.3082	0.000	100000.000	0.000	-18.000
.3393	5000.000	100000.000	0.000	-18.000
.3699	10000.000	100000.000	0.000	-18.000
.3959	15000.000	100000.000	0.000	-18.000
.4176	20000.000	100000.000	0.000	-18.000
.4460	25000.000	100000.000	0.000	-18.000
.4797	30000.000	100000.000	0.000	-18.000
.5273	35000.000	100000.000	0.000	-18.000
.5343	36000.000	100000.000	0.000	-18.000
.3172	0.000	120000.000	0.000	-18.000
.3511	5000.000	120000.000	0.000	-18.000
.3832	10000.000	120000.000	0.000	-18.000
.4074	15000.000	120000.000	0.000	-18.000
.4343	20000.000	120000.000	0.000	-18.000
.4667	25000.000	120000.000	0.000	-18.000
.5107	30000.000	120000.000	0.000	-18.000
.5196	31000.000	120000.000	0.000	-18.000
.5286	32000.000	120000.000	0.000	-18.000
.3270	0.000	145000.000	0.000	-18.000
.3521	5000.000	145000.000	0.000	-18.000
.3975	10000.000	145000.000	0.000	-18.000
.4247	15000.000	145000.000	0.000	-18.000
.4562	20000.000	145000.000	0.000	-18.000
.4940	25000.000	145000.000	0.000	-18.000
.5029	26000.000	145000.000	0.000	-18.000
.2648	0.000	70000.000	100.000	-18.000
.2898	5000.000	70000.000	100.000	-18.000
.3133	10000.000	70000.000	100.000	-18.000
.3333	15000.000	70000.000	100.000	-18.000
.3508	20000.000	70000.000	100.000	-18.000
.3722	25000.000	70000.000	100.000	-18.000
.3964	30000.000	70000.000	100.000	-18.000
.4242	35000.000	70000.000	100.000	-18.000
.4510	40000.000	70000.000	100.000	-18.000
.4574	41000.000	70000.000	100.000	-18.000
.2750	0.000	90000.000	100.000	-18.000
.3019	5000.000	90000.000	100.000	-18.000
.3259	10000.000	90000.000	100.000	-18.000
.3449	15000.000	90000.000	100.000	-18.000
.3667	20000.000	90000.000	100.000	-18.000
.3915	25000.000	90000.000	100.000	-18.000
.4201	30000.000	90000.000	100.000	-18.000
.4525	35000.000	90000.000	100.000	-18.000
.4589	36000.000	90000.000	100.000	-18.000
.2783	0.000	100000.000	100.000	-18.000
.3054	5000.000	100000.000	100.000	-18.000
.3312	10000.000	100000.000	100.000	-18.000
.3517	15000.000	100000.000	100.000	-18.000
.3749	20000.000	100000.000	100.000	-18.000
.4014	25000.000	100000.000	100.000	-18.000
.4317	30000.000	100000.000	100.000	-18.000
.4380	31000.000	100000.000	100.000	-18.000
.4446	32000.000	100000.000	100.000	-18.000
.4517	33000.000	100000.000	100.000	-18.000
.2865	0.000	120000.000	100.000	-18.000
.3150	5000.000	120000.000	100.000	-18.000
.3425	10000.000	120000.000	100.000	-18.000
.3654	15000.000	120000.000	100.000	-18.000
.3914	20000.000	120000.000	100.000	-18.000
.4209	25000.000	120000.000	100.000	-18.000
.4274	26000.000	120000.000	100.000	-18.000
.4339	27000.000	120000.000	100.000	-18.000
.4405	28000.000	120000.000	100.000	-18.000
.2987	0.000	145000.000	100.000	-18.000
.3299	5000.000	145000.000	100.000	-18.000
.3571	10000.000	145000.000	100.000	-18.000
.3831	15000.000	145000.000	100.000	-18.000
.4118	20000.000	145000.000	100.000	-18.000
.4178	21000.000	145000.000	100.000	-18.000
.4240	22000.000	145000.000	100.000	-18.000
.4307	23000.000	145000.000	100.000	-18.000
.2515	0.000	70000.000	200.000	-18.000
.2724	5000.000	70000.000	200.000	-18.000
.2867	10000.000	70000.000	200.000	-18.000
.3021	15000.000	70000.000	200.000	-18.000
.3212	20000.000	70000.000	200.000	-18.000
.3417	25000.000	70000.000	200.000	-18.000
.3645	30000.000	70000.000	200.000	-18.000
.3915	35000.000	70000.000	200.000	-18.000
.3965	36000.000	70000.000	200.000	-18.000
.4015	37000.000	70000.000	200.000	-18.000
.4069	38000.000	70000.000	200.000	-18.000
.4125	39000.000	70000.000	200.000	-18.000
.4184	40000.000	70000.000	200.000	-18.000
.2572	0.000	90000.000	200.000	-18.000
.2799	5000.000	90000.000	200.000	-18.000
.2977	10000.000	90000.000	200.000	-18.000
.3163	15000.000	90000.000	200.000	-18.000
.3372	20000.000	90000.000	200.000	-18.000
.3606	25000.000	90000.000	200.000	-18.000
.3880	30000.000	90000.000	200.000	-18.000
.3940	31000.000	90000.000	200.000	-18.000
.4002	32000.000	90000.000	200.000	-18.000
.4066	33000.000	90000.000	200.000	-18.000
.4131	34000.000	90000.000	200.000	-18.000
.2604	0.000	100000.000	200.000	-18.000
.2838	5000.000	100000.000	200.000	-18.000
.3016	10000.000	100000.000	200.000	-18.000
.3233	15000.000	100000.000	200.000	-18.000
.3451	20000.000	100000.000	200.000	-18.000
.3704	25000.000	100000.000	200.000	-18.000
.3998	30000.000	100000.000	200.000	-18.000
.4062	31000.000	100000.000	200.000	-18.000
.2669	0.000	120000.000	200.000	-18.000
.2922	5000.000	120000.000	200.000	-18.000
.3157	10000.000	120000.000	200.000	-18.000
.3369	15000.000	120000.000	200.000	-18.000
.3613	20000.000	120000.000	200.000	-18.000
.3897	25000.000	120000.000	200.000	-18.000
.3958	26000.000	120000.000	200.000	-18.000

# NADC-77036-30

.2765	0.000145000.000	200.000	-18.000
.3034	5000.000145000.000	200.000	-18.000
.3299	10000.000145000.000	200.000	-18.000
.3538	15000.000145000.000	200.000	-18.000
.3595	16000.000145000.000	200.000	-18.000
.3647	17000.000145000.000	200.000	-18.000
.3701	18000.000145000.000	200.000	-18.000
.3757	19000.000145000.000	200.000	-18.000
.3814	20000.000145000.000	200.000	-18.000

CVRSEL27071904180616261008271123132825201430051543214731424636  
FINISH

BMD04V - ANALYSIS OF COVARIANCE - MULTIPLE COVARIATES - REVISED OCTOBER 2, 1972  
 HEALTH SCIENCES COMPUTING FACILITY, UCLA ( NADC REVISION JULY 2, 1976 J.J. FRANZ )

FRIDAY, JUL 2, 1976

PROBLM4MACDT0200770010503101YES005 N002YESYESYES YES N0YES740001

PROBLEM CODE.....4MACDT  
 NUMBER OF TREATMENT GROUPS..... 2  
 TOTAL NUMBER OF CASES..... 770  
 NUMBER OF CARDS PER CASE..... 1  
 NUMBER OF ENTERING VARIABLES..... 5  
 NUMBER OF VARIABLES ADDED..... 31  
 INDEX OF THE DEPENDENT VARIABLE..... 1  
 PRINT DATA INPUT..... YES  
 NUMBER OF VARIABLES NAMED..... 5  
 USE DATA CARDS OF LAST PROBLEM... NO  
 NUMBER OF GROUP DEFINITION CARDS... 2  
 PRINT RESIDUALS (WITHIN)..... YES  
 PRINT RESIDUALS (TOTAL)..... YES  
 PRINT TRANSGENERATED VARIABLES... YES  
 PRINT CORRELATION MATRICES..... YES  
 FORECAST DATA INPUT..... NO  
 REWIND INPUT TAPE..... YES  
 NUMBER OF TRANSGENERATION CARDS... 74  
 SPECIFIED BCD TAPE NUMBER..... 0  
 NUMBER OF VARIABLE FORMAT CARDS... 1

FRIDAY, JUL 2, 1976

# TRANS-GENERATION CARDS

CARD NEW TRANS OLD CONST.  
 NO. VAR. CODE VAR(A) OR VAR(B)

1	2	9	2	.00010
2	3	9	3	.00010
3	6	10	2	.50000
4	7	10	2	1.50000
5	8	10	3	-.50000
6	9	13	3	3.00000
7	10	13	9	3.00000
8	11	13	4	4.00000
9	12	13	5	5.00000
10	13	13	12	5.00000
11	14	13	6	8.00000
12	15	13	7	10.00000
13	16	13	7	8.00000
14	17	13	7	10.00000
15	18	13	4	6.00000
16	19	13	4	7.00000
17	20	13	4	8.00000
18	21	13	4	10.00000
19	22	13	11	6.00000
20	23	13	11	7.00000
21	24	13	11	8.00000
22	25	13	11	10.00000
23	26	13	5	6.00000
24	27	13	5	7.00000
25	28	13	5	8.00000
26	29	13	5	10.00000
27	30	13	13	6.00000
28	31	13	13	7.00000
29	32	13	13	8.00000
30	33	13	13	10.00000
31	34	13	5	4.00000
32	35	13	5	11.00000
33	36	13	13	4.00000
34	37	13	13	11.00000
35	38	13	5	14.00000
36	39	13	5	15.00000
37	40	13	5	16.00000
38	41	13	5	17.00000
39	42	13	5	18.00000
40	43	13	5	19.00000
41	44	13	5	20.00000
42	45	13	5	21.00000
43	46	13	5	22.00000
44	47	13	5	23.00000
45	48	13	5	24.00000
46	49	13	5	25.00000
47	50	13	13	14.00000
48	51	13	13	15.00000
49	52	13	13	16.00000
50	53	13	13	17.00000

FRIDAY, JUL 2, 1976

TRANS-GENERATION CARDS

CARD NEW TRANS OLD CONST.  
NO. VAR. CODE VAR(A) OR VAR(B)

51	54	13	13	18.00000
52	55	13	13	19.00000
53	56	13	13	20.00000
54	57	13	13	21.00000
55	58	13	13	22.00000
56	59	13	13	23.00000
57	60	13	13	24.00000
58	61	13	13	25.00000
59	62	13	38	4.00000
60	63	13	42	10.00000
61	64	13	43	8.00000
62	65	13	45	7.00000
63	66	13	46	8.00000
64	67	13	46	10.00000
65	68	13	47	8.00000
66	69	13	47	10.00000
67	70	13	50	4.00000
68	71	13	51	4.00000
69	72	13	52	4.00000
70	73	13	53	4.00000
71	74	13	58	8.00000
72	75	13	58	10.00000
73	76	13	59	8.00000
74	77	13	59	10.00000

GROUP DEFINITION CARDS

FRIDAY, JUL 2, 1976

A CASE IS IN GROUP 1 IF,  
VAR( 5) IS LE 0.00000 \*

A CASE IS IN GROUP 2 IF,  
VAR( 5) IS GT 0.00000 \*

FRIDAY, JUL 2, 1976

LABELS CARDS

0001	MACH	0002	ALT	0003	WT	0004	DC	0005	DT
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THE VARIABLE FORMAT CARDS

(10X.F10.4,4F10.3)

FRIDAY, JUL 2, 1976

# NADC-77036-30

FRIDAY, JUL 2, 1976

GROUP NO. SPECIFIED	NO. ASSIGNED*	SAMPLE SIZE
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1	1	401
2	2	369

FRIDAY, JUL 2, 1976

COVARIATE SELECTION CARDS

CURSEL27071904180616261008271123132825201430051543214731424636

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	GROUP NUMBER
CASE NUMBER	1	.3265	119.048	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	2	.3436	5000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	3	.3605	10238.095	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	4	.3802	15000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	5	.4021	20000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	6	.4315	25000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	7	.4661	30000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	8	.5010	35000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	9	.5415	40000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	10	.5491	41000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	11	.5504	42000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	12	.5501	43000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	13	.5536	44000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	14	.3298	0.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	15	.3458	5000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	
CASE NUMBER	16	.3704	10000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	GROUP NUMBER
CASE NUMBER	17	.3989	15000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	18	.4296	20000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	19	.4608	25000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	20	.4952	30000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	21	.5440	35000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	22	.5491	36000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	23	.5499	37000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	24	.5499	38000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	25	.5549	39000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	26	.3320	0.000	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	27	.3515	4404.762	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	28	.3814	10000.000	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	29	.4114	15000.000	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	30	.4406	20000.000	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	31	.4730	24940.476	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	32	.5128	30000.000	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER			GROUP NUMBER
	33			1
	.5499	35000.000100000.000	-50.000	0.000
CASE NUMBER	34			1
	.5510	36000.000100000.000	-50.000	0.000
CASE NUMBER	35			1
	.5561	37000.000100000.000	-50.000	0.000
CASE NUMBER	36			1
	.3453	0.000120000.000	-50.000	0.000
CASE NUMBER	37			1
	.3728	5000.000120000.000	-50.000	0.000
CASE NUMBER	38			1
	.4011	10000.000120000.000	-50.000	0.000
CASE NUMBER	39			1
	.4282	15000.000120000.000	-50.000	0.000
CASE NUMBER	40			1
	.4568	20000.000120000.000	-50.000	0.000
CASE NUMBER	41			1
	.4941	25000.000120000.000	-50.000	0.000
CASE NUMBER	42			1
	.5441	30000.000120000.000	-50.000	0.000
CASE NUMBER	43			1
	.5490	31000.000120000.000	-50.000	0.000
CASE NUMBER	44			1
	.5503	32000.000120000.000	-50.000	0.000
CASE NUMBER	45			1
	.3618	0.000145000.000	-50.000	0.000
CASE NUMBER	46			1
	.3895	5059.524145000.000	-50.000	0.000
CASE NUMBER	47			1
	.4200	10416.667145000.000	-50.000	0.000
CASE NUMBER	48			1
	.4440	14226.180145000.000	-50.000	0.000

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER			GROUP NUMBER
	49			1
	.4850	20000.000145000.000	-50.000	0.000
CASE NUMBER	50			1
	.5252	25000.000145000.000	-50.000	0.000
CASE NUMBER	51			1
	.5353	26000.000145000.000	-50.000	0.000
CASE NUMBER	52			1
	.2986	0.00070000.000	0.000	0.000
CASE NUMBER	53			1
	.3170	5000.00070000.000	0.000	0.000
CASE NUMBER	54			1
	.3345	10000.00070000.000	0.000	0.000
CASE NUMBER	55			1
	.3545	14583.33370000.000	0.000	0.000
CASE NUMBER	56			1
	.3818	20000.00070000.000	0.000	0.000
CASE NUMBER	57			1
	.4091	25000.00070000.000	0.000	0.000
CASE NUMBER	58			1
	.4375	30178.57170000.000	0.000	0.000
CASE NUMBER	59			1
	.4667	35000.00070000.000	0.000	0.000
CASE NUMBER	60			1
	.4960	40000.00070000.000	0.000	0.000
CASE NUMBER	61			1
	.5029	41000.00070000.000	0.000	0.000
CASE NUMBER	62			1
	.5100	42000.00070000.000	0.000	0.000
CASE NUMBER	63			1
	.5183	43000.00070000.000	0.000	0.000
CASE NUMBER	64			1
	.3036	0.00090000.000	0.000	0.000

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER				GROUP NUMBER
	65				1
	.3272	5000.000	90000.000	0.000	0.000
CASE NUMBER	66				1
	.3527	10000.000	90000.000	0.000	0.000
CASE NUMBER	67				1
	.3778	15000.000	90000.000	0.000	0.000
CASE NUMBER	68				1
	.4018	20000.000	90000.000	0.000	0.000
CASE NUMBER	69				1
	.4279	25000.000	90000.000	0.000	0.000
CASE NUMBER	70				1
	.4579	30000.000	90000.000	0.000	0.000
CASE NUMBER	71				1
	.4978	35000.000	90000.000	0.000	0.000
CASE NUMBER	72				1
	.5044	36000.000	90000.000	0.000	0.000
CASE NUMBER	73				1
	.5117	37000.000	90000.000	0.000	0.000
CASE NUMBER	74				1
	.3128	0.000	100000.000	0.000	0.000
CASE NUMBER	75				1
	.3360	5000.000	100000.000	0.000	0.000
CASE NUMBER	76				1
	.3615	10000.000	100000.000	0.000	0.000
CASE NUMBER	77				1
	.3844	15000.000	100000.000	0.000	0.000
CASE NUMBER	78				1
	.4101	20000.000	100000.000	0.000	0.000
CASE NUMBER	79				1
	.4384	25000.000	100000.000	0.000	0.000
CASE NUMBER	80				1
	.4719	30000.000	100000.000	0.000	0.000

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER				GROUP NUMBER
	81				1
	.4802	31000.000	100000.000	0.000	0.000
CASE NUMBER	82				1
	.4891	32000.000	100000.000	0.000	0.000
CASE NUMBER	83				1
	.4979	33000.000	100000.000	0.000	0.000
CASE NUMBER	84				1
	.5061	34000.000	100000.000	0.000	0.000
CASE NUMBER	85				1
	.5132	35000.000	100000.000	0.000	0.000
CASE NUMBER	86				1
	.3260	119.048	120000.000	0.000	0.000
CASE NUMBER	87				1
	.3472	5000.000	120000.000	0.000	0.000
CASE NUMBER	88				1
	.3727	10000.000	120000.000	0.000	0.000
CASE NUMBER	89				1
	.3997	15000.000	120000.000	0.000	0.000
CASE NUMBER	90				1
	.4267	20000.000	120000.000	0.000	0.000
CASE NUMBER	91				1
	.4596	25000.000	120000.000	0.000	0.000
CASE NUMBER	92				1
	.4670	26000.000	120000.000	0.000	0.000
CASE NUMBER	93				1
	.4741	27000.000	120000.000	0.000	0.000
CASE NUMBER	94				1
	.4822	28000.000	120000.000	0.000	0.000
CASE NUMBER	95				1
	.4912	29000.000	120000.000	0.000	0.000
CASE NUMBER	96				1
	.5012	30000.000	120000.000	0.000	0.000

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT						
CASE NUMBER	97				GROUP NUMBER	1
	.3384	0.000145000.000	0.000	0.000		
CASE NUMBER	98				GROUP NUMBER	1
	.3623	5000.000145000.000	0.000	0.000		
CASE NUMBER	99				GROUP NUMBER	1
	.3900	10000.000145000.000	0.000	0.000		
CASE NUMBER	100				GROUP NUMBER	1
	.4171	15000.000145000.000	0.000	0.000		
CASE NUMBER	101				GROUP NUMBER	1
	.4491	20000.000145000.000	0.000	0.000		
CASE NUMBER	102				GROUP NUMBER	1
	.4558	21000.000145000.000	0.000	0.000		
CASE NUMBER	103				GROUP NUMBER	1
	.4634	22000.000145000.000	0.000	0.000		
CASE NUMBER	104				GROUP NUMBER	1
	.4712	23000.000145000.000	0.000	0.000		
CASE NUMBER	105				GROUP NUMBER	1
	.4791	24000.000145000.000	0.000	0.000		
CASE NUMBER	106				GROUP NUMBER	1
	.2871	0.000 70000.000	100.000	0.000		
CASE NUMBER	107				GROUP NUMBER	1
	.2861	5000.000 70000.000	100.000	0.000		
CASE NUMBER	108				GROUP NUMBER	1
	.3049	10000.000 70000.000	100.000	0.000		
CASE NUMBER	109				GROUP NUMBER	1
	.3231	15000.000 70000.000	100.000	0.000		
CASE NUMBER	110				GROUP NUMBER	1
	.3416	20000.000 70000.000	100.000	0.000		
CASE NUMBER	111				GROUP NUMBER	1
	.3635	25000.000 70000.000	100.000	0.000		
CASE NUMBER	112				GROUP NUMBER	1
	.3889	30000.000 70000.000	100.000	0.000		

FRIDAY, JUL 2, 1976

DATA INPUT						
CASE NUMBER	113				GROUP NUMBER	1
	.4186	35000.000 70000.000	100.000	0.000		
CASE NUMBER	114				GROUP NUMBER	1
	.4238	36000.000 70000.000	100.000	0.000		
CASE NUMBER	115				GROUP NUMBER	1
	.4294	37000.000 70000.000	100.000	0.000		
CASE NUMBER	116				GROUP NUMBER	1
	.4352	38000.000 70000.000	100.000	0.000		
CASE NUMBER	117				GROUP NUMBER	1
	.4411	39000.000 70000.000	100.000	0.000		
CASE NUMBER	118				GROUP NUMBER	1
	.4473	40000.000 70000.000	100.000	0.000		
CASE NUMBER	119				GROUP NUMBER	1
	.2784	0.000 90000.000	100.000	0.000		
CASE NUMBER	120				GROUP NUMBER	1
	.3000	5000.000 90000.000	100.000	0.000		
CASE NUMBER	121				GROUP NUMBER	1
	.3168	10000.000 90000.000	100.000	0.000		
CASE NUMBER	122				GROUP NUMBER	1
	.3363	15000.000 90000.000	100.000	0.000		
CASE NUMBER	123				GROUP NUMBER	1
	.3584	20000.000 90000.000	100.000	0.000		
CASE NUMBER	124				GROUP NUMBER	1
	.3838	25000.000 90000.000	100.000	0.000		
CASE NUMBER	125				GROUP NUMBER	1
	.4138	30000.000 90000.000	100.000	0.000		
CASE NUMBER	126				GROUP NUMBER	1
	.4205	31000.000 90000.000	100.000	0.000		
CASE NUMBER	127				GROUP NUMBER	1
	.4271	32000.000 90000.000	100.000	0.000		
CASE NUMBER	128				GROUP NUMBER	1
	.4338	33000.000 90000.000	100.000	0.000		

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT						GROUP NUMBER	1
CASE NUMBER	129						
	.4410	34000.000	90000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	130						
	.4488	35000.000	90000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	131						
	.2847	190.476	100000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	132						
	.3052	5000.000	100000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	133						
	.3229	10000.000	100000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	134						
	.3432	15000.000	100000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	135						
	.3670	20000.000	100000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	136						
	.3943	25000.000	100000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	137						
	.4259	30000.000	100000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	138						
	.4327	31000.000	100000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	139						
	.4396	32000.000	100000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	140						
	.2903	0.000	120000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	141						
	.3126	5000.000	120000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	142						
	.3345	10000.000	120000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	143						
	.3575	15000.000	120000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	144						
	.3845	20000.000	120000.000	100.000	0.000	GROUP NUMBER	1

FRIDAY, JUL 2, 1976

DATA INPUT						GROUP NUMBER	1
CASE NUMBER	145						
	.4153	25000.000	120000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	146						
	.4216	26000.000	120000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	147						
	.4283	27000.000	120000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	148						
	.3020	0.000	145000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	149						
	.3250	5000.000	145000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	150						
	.3496	10000.000	145000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	151						
	.3760	15000.000	145000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	152						
	.4065	20000.000	145000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	153						
	.4126	21000.000	145000.000	100.000	0.000	GROUP NUMBER	1
CASE NUMBER	154						
	.2520	0.000	70000.000	200.000	0.000	GROUP NUMBER	1
CASE NUMBER	155						
	.2647	5000.000	70000.000	200.000	0.000	GROUP NUMBER	1
CASE NUMBER	156						
	.2782	10000.000	70000.000	200.000	0.000	GROUP NUMBER	1
CASE NUMBER	157						
	.2939	15000.000	70000.000	200.000	0.000	GROUP NUMBER	1
CASE NUMBER	158						
	.3116	20000.000	70000.000	200.000	0.000	GROUP NUMBER	1
CASE NUMBER	159						
	.3340	25000.000	70000.000	200.000	0.000	GROUP NUMBER	1
CASE NUMBER	160						
	.3577	30000.000	70000.000	200.000	0.000	GROUP NUMBER	1

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176
CASE NUMBER	161	.3858	35000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	162	.3908	36000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	163	.3962	37000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	164	.4019	38000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	165	.2585	0.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	166	.2734	5000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	167	.2897	10000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	168	.3083	15000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	169	.3298	20000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	170	.3539	25000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	171	.3822	30000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	172	.3884	31000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	173	.3948	32000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	174	.2619	0.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	175	.2783	5000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	176	.2956	10000.000	100000.000	200.000	0.000	GROUP NUMBER	1									

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192
CASE NUMBER	177	.3160	15000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	178	.3382	20000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	179	.3639	25000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	180	.3696	26000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	181	.3754	27000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	182	.3815	28000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	183	.3878	29000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	184	.2691	0.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	185	.2887	5000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	186	.3083	10000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	187	.3304	15000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	188	.3550	20000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	189	.3605	21000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	190	.3661	22000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	191	.3719	23000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	192	.3779	24000.000	120000.000	200.000	0.000	GROUP NUMBER	1									

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT						GROUP NUMBER	1
CASE NUMBER	193						
	.2821	142.857145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	194						
	.3033	5000.000145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	195						
	.3236	10000.000145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	196						
	.3477	15000.000145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	197						
	.3529	16000.000145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	198						
	.3584	17000.000145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	199						
	.3641	18000.000145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	200						
	.3057	0.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	201						
	.3284	5000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	202						
	.3476	10000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	203						
	.3715	15535.714 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	204						
	.3930	20000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	205						
	.4240	25119.048 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	206						
	.4592	30000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	207						
	.4919	35000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	208						
	.5292	40000.000 70000.000	-50.000	18.000		GROUP NUMBER	2

FRIDAY, JUL 2, 1976

DATA INPUT						GROUP NUMBER	2
CASE NUMBER	209						
	.5419	41000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	210						
	.5488	42000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	211						
	.5498	43000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	212						
	.3094	0.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	213						
	.3344	5000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	214						
	.3620	10000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	215						
	.3920	15000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	216						
	.4220	20000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	217						
	.4503	25000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	218						
	.4854	30000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	219						
	.5325	35000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	220						
	.5439	36000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	221						
	.5494	37000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	222						
	.5502	38000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	223						
	.3174	0.000100000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	224						
	.3455	5000.000100000.000	-50.000	18.000		GROUP NUMBER	2

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER				GROUP NUMBER
	225				2
	.3743	10000.000100000.000	-50.000	18.000	
CASE NUMBER	226				2
	.4040	15000.000100000.000	-50.000	18.000	
CASE NUMBER	227				2
	.4350	20476.190100000.000	-50.000	18.000	
CASE NUMBER	228				2
	.4650	25476.190100000.000	-50.000	18.000	
CASE NUMBER	229				2
	.5026	30000.000100000.000	-50.000	18.000	
CASE NUMBER	230				2
	.5495	35000.000100000.000	-50.000	18.000	
CASE NUMBER	231				2
	.5498	36000.000100000.000	-50.000	18.000	
CASE NUMBER	232				2
	.3364	0.000120000.000	-50.000	18.000	
CASE NUMBER	233				2
	.3647	5000.000120000.000	-50.000	18.000	
CASE NUMBER	234				2
	.3935	10000.000120000.000	-50.000	18.000	
CASE NUMBER	235				2
	.4180	14583.333120000.000	-50.000	18.000	
CASE NUMBER	236				2
	.4480	19464.286120000.000	-50.000	18.000	
CASE NUMBER	237				2
	.4892	25000.000120000.000	-50.000	18.000	
CASE NUMBER	238				2
	.4987	26000.000120000.000	-50.000	18.000	
CASE NUMBER	239				2
	.5068	27000.000120000.000	-50.000	18.000	
CASE NUMBER	240				2
	.5156	28000.000120000.000	-50.000	18.000	

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER				GROUP NUMBER
	241				2
	.5257	29000.000120000.000	-50.000	18.000	
CASE NUMBER	242				2
	.5381	30000.000120000.000	-50.000	18.000	
CASE NUMBER	243				2
	.3532	0.000145000.000	-50.000	18.000	
CASE NUMBER	244				2
	.3807	5000.000145000.000	-50.000	18.000	
CASE NUMBER	245				2
	.4070	10000.000145000.000	-50.000	18.000	
CASE NUMBER	246				2
	.4382	15000.000145000.000	-50.000	18.000	
CASE NUMBER	247				2
	.4759	20000.000145000.000	-50.000	18.000	
CASE NUMBER	248				2
	.4854	21000.000145000.000	-50.000	18.000	
CASE NUMBER	249				2
	.4939	22000.000145000.000	-50.000	18.000	
CASE NUMBER	250				2
	.5022	23000.000145000.000	-50.000	18.000	
CASE NUMBER	251				2
	.5103	24000.000145000.000	-50.000	18.000	
CASE NUMBER	252				2
	.5189	25000.000145000.000	-50.000	18.000	
CASE NUMBER	253				2
	.2848	0.000 70000.000	0.000	18.000	
CASE NUMBER	254				2
	.3048	5000.000 70000.000	0.000	18.000	
CASE NUMBER	255				2
	.3275	10178.571 70000.000	0.000	18.000	
CASE NUMBER	256				2
	.3474	15000.000 70000.000	0.000	18.000	

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER				GROUP NUMBER
	257				2
	.3734	20000.000	70000.000	0.000	18.000
CASE NUMBER	258				2
	.3985	25000.000	70000.000	0.000	18.000
CASE NUMBER	259				2
	.4261	30000.000	70000.000	0.000	18.000
CASE NUMBER	260				2
	.4579	35238.095	70000.000	0.000	18.000
CASE NUMBER	261				2
	.4896	40000.000	70000.000	0.000	18.000
CASE NUMBER	262				2
	.4965	41000.000	70000.000	0.000	18.000
CASE NUMBER	263				2
	.2948	0.000	90000.000	0.000	18.000
CASE NUMBER	264				2
	.3197	5000.000	90000.000	0.000	18.000
CASE NUMBER	265				2
	.3445	10000.000	90000.000	0.000	18.000
CASE NUMBER	266				2
	.3664	15000.000	90000.000	0.000	18.000
CASE NUMBER	267				2
	.3913	20000.000	90000.000	0.000	18.000
CASE NUMBER	268				2
	.4213	25000.000	90000.000	0.000	18.000
CASE NUMBER	269				2
	.4521	30000.000	90000.000	0.000	18.000
CASE NUMBER	270				2
	.4912	35000.000	90000.000	0.000	18.000
CASE NUMBER	271				2
	.4981	36000.000	90000.000	0.000	18.000
CASE NUMBER	272				2
	.3015	0.000	100000.000	0.000	18.000

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER				GROUP NUMBER
	273				2
	.3269	5000.000	100000.000	0.000	18.000
CASE NUMBER	274				2
	.3505	10000.000	100000.000	0.000	18.000
CASE NUMBER	275				2
	.3736	15000.000	100000.000	0.000	18.000
CASE NUMBER	276				2
	.4019	20000.000	100000.000	0.000	18.000
CASE NUMBER	277				2
	.4310	25000.000	100000.000	0.000	18.000
CASE NUMBER	278				2
	.4652	30000.000	100000.000	0.000	18.000
CASE NUMBER	279				2
	.4732	31000.000	100000.000	0.000	18.000
CASE NUMBER	280				2
	.4816	32000.000	100000.000	0.000	18.000
CASE NUMBER	281				2
	.4901	33000.000	100000.000	0.000	18.000
CASE NUMBER	282				2
	.3116	0.000	120000.000	0.000	18.000
CASE NUMBER	283				2
	.3365	5000.000	120000.000	0.000	18.000
CASE NUMBER	284				2
	.3633	10000.000	120000.000	0.000	18.000
CASE NUMBER	285				2
	.3909	15000.000	120000.000	0.000	18.000
CASE NUMBER	286				2
	.4195	20000.000	120000.000	0.000	18.000
CASE NUMBER	287				2
	.4522	25000.000	120000.000	0.000	18.000
CASE NUMBER	288				2
	.4597	26000.000	120000.000	0.000	18.000

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304
		.4676	.4760	.3263	.3533	.3810	.4100	.4418	.4490	.4565	.2613	.2780	.2955	.3128	.3331	.3547	.3806
		27000.000	28000.000	0.000	5000.000	10000.000	15000.000	20000.000	21000.000	22000.000	0.000	5000.000	10000.000	15000.000	20000.000	25000.000	30000.000
		120000.000	120000.000	145000.000	145000.000	145000.000	145000.000	145000.000	145000.000	145000.000	70000.000	70000.000	70000.000	70000.000	70000.000	70000.000	70000.000
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
		18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000
GROUP NUMBER		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320
		.4117	.4171	.4230	.4292	.4356	.2711	.2892	.3076	.3278	.3501	.3763	.4072	.4139	.4212	.4284	.2745
		35000.000	36000.000	37000.000	38000.000	39000.000	0.000	5000.000	10000.000	15000.000	20000.000	25000.000	30000.000	31000.000	32000.000	33000.000	0.000
		70000.000	70000.000	70000.000	70000.000	70000.000	90000.000	90000.000	90000.000	90000.000	90000.000	90000.000	90000.000	90000.000	90000.000	90000.000	100000.000
		100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
		18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000
GROUP NUMBER		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	321	2956	5000.000100000.000	100.000	18.000	GROUP NUMBER	2
CASE NUMBER	322	.3141	10000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	323	.3351	15000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	324	.3590	20000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	325	.3874	25000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	326	.3936	26000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	327	.4000	27000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	328	.4066	28000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	329	.4135	29000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	330	.4205	30000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	331	.2825	0.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	332	.3044	5000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	333	.3265	10000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	334	.3499	15000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	335	.3773	20000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	336	.3833	21000.000120000.000	100.000	18.000	GROUP NUMBER	2	

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	337	3895	22000.000120000.000	100.000	18.000	GROUP NUMBER	2
CASE NUMBER	338	.3959	23000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	339	.4026	24000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	340	.4095	25000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	341	.2929	0.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	342	.3172	5000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	343	.3424	10000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	344	.3691	15000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	345	.3750	16000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	346	.3811	17000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	347	.3873	18000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	348	.3937	19000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	349	.2456	0.00070000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	350	.2555	5000.00070000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	351	.2705	10000.00070000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	352	.2863	15000.00070000.000	200.000	18.000	GROUP NUMBER	2	

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	353	3042 20000.000 70000.000	200.000	18.000	GROUP NUMBER	2
CASE NUMBER	354	.3253 25000.000 70000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	355	.3506 30000.000 70000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	356	.3797 35000.000 70000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	357	.3849 36000.000 70000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	358	.3905 37000.000 70000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	359	.2521 0.000 90000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	360	.2651 5000.000 90000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	361	.2819 10000.000 90000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	362	.3009 15000.000 90000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	363	.3228 20000.000 90000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	364	.3472 25000.000 90000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	365	.3761 30000.000 90000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	366	.3824 31000.000 90000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	367	.2557 0.000100000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	368	.2701 5000.000100000.000	200.000	18.000	GROUP NUMBER	2	

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	369	2881 10000.000100000.000	200.000	18.000	GROUP NUMBER	2
CASE NUMBER	370	.3087 15000.000100000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	371	.3323 20000.000100000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	372	.3576 25000.000100000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	373	.3634 26000.000100000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	374	.3694 27000.000100000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	375	.3756 28000.000100000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	376	.2634 0.000120000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	377	.2807 5000.000120000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	378	.3012 10000.000120000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	379	.3238 15000.000120000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	380	.3490 20000.000120000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	381	.3545 21000.000120000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	382	.3602 22000.000120000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	383	.2737 0.000145000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	384	.2967 5000.000145000.000	200.000	18.000	GROUP NUMBER	2	

FRIDAY, JUL 2, 1976

DATA INPUT						GROUP NUMBER	2
CASE NUMBER	385						
	.3173	10000.000145000.000	200.000	18.000		GROUP NUMBER	2
CASE NUMBER	386						
	.3419	15000.000145000.000	200.000	18.000		GROUP NUMBER	2
CASE NUMBER	387						
	.3475	18000.000145000.000	200.000	18.000		GROUP NUMBER	2
CASE NUMBER	388						
	.2936	0.000 70000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	389						
	.3129	5000.000 70000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	390						
	.3347	10000.000 70000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	391						
	.3605	15476.190 70000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	392						
	.3864	20000.000 70000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	393						
	.4193	25000.000 70000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	394						
	.4488	30000.000 70000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	395						
	.4844	35000.000 70000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	396						
	.5174	40000.000 70000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	397						
	.5285	41000.000 70000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	398						
	.5401	42000.000 70000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	399						
	.3018	0.000 90000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	400						
	.3281	5000.000 90000.000	-50.000	36.000		GROUP NUMBER	2

FRIDAY, JUL 2, 1976

DATA INPUT						GROUP NUMBER	2
CASE NUMBER	401						
	.3556	10000.000 90000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	402						
	.3846	15000.000 90000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	403						
	.4131	20000.000 90000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	404						
	.4395	25000.000 90000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	405						
	.4778	30000.000 90000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	406						
	.5189	35000.000 90000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	407						
	.5315	36000.000 90000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	408						
	.3108	0.000100000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	409						
	.3382	5000.000100000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	410						
	.3666	10000.000100000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	411						
	.3954	15000.000100000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	412						
	.4210	19761.905100000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	413						
	.4528	25000.000100000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	414						
	.4953	30000.000100000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	415						
	.5054	31000.000100000.000	-50.000	36.000		GROUP NUMBER	2
CASE NUMBER	416						
	.5147	32000.000100000.000	-50.000	36.000		GROUP NUMBER	2

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER				GROUP NUMBER
	417				2
	.5232	33000.000100000.000	-50.000	36.000	2
	418				2
	.5332	34000.000100000.000	-50.000	36.000	2
	419				2
	.3263	0.000120000.000	-50.000	36.000	2
	420				2
	.3538	5000.000120000.000	-50.000	36.000	2
	421				2
	.3820	10000.000120000.000	-50.000	36.000	2
	422				2
	.4092	15000.000120000.000	-50.000	36.000	2
	423				2
	.4405	20000.000120000.000	-50.000	36.000	2
	424				2
	.4796	25000.000120000.000	-50.000	36.000	2
	425				2
	.4892	26000.000120000.000	-50.000	36.000	2
	426				2
	.4992	27000.000120000.000	-50.000	36.000	2
	427				2
	.5081	28000.000120000.000	-50.000	36.000	2
	428				2
	.5176	29000.000120000.000	-50.000	36.000	2
	429				2
	.3393	0.000145000.000	-50.000	36.000	2
	430				2
	.3693	5000.000145000.000	-50.000	36.000	2
	431				2
	.3997	10000.000145000.000	-50.000	36.000	2
	432				2
	.4302	15000.000145000.000	-50.000	36.000	2

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER				GROUP NUMBER
	433				2
	.4671	20000.000145000.000	-50.000	36.000	2
	434				2
	.4761	21000.000145000.000	-50.000	36.000	2
	435				2
	.4856	22000.000145000.000	-50.000	36.000	2
	436				2
	.2747	0.000 70000.000	0.000	36.000	2
	437				2
	.2919	5000.000 70000.000	0.000	36.000	2
	438				2
	.3168	10000.000 70000.000	0.000	36.000	2
	439				2
	.3400	15000.000 70000.000	0.000	36.000	2
	440				2
	.3632	20000.000 70000.000	0.000	36.000	2
	441				2
	.3879	24857.143 70000.000	0.000	36.000	2
	442				2
	.4187	30000.000 70000.000	0.000	36.000	2
	443				2
	.4523	35000.000 70000.000	0.000	36.000	2
	444				2
	.4580	36000.000 70000.000	0.000	36.000	2
	445				2
	.4641	37000.000 70000.000	0.000	36.000	2
	446				2
	.4704	38000.000 70000.000	0.000	36.000	2
	447				2
	.4770	39000.000 70000.000	0.000	36.000	2
	448				2
	.4838	40000.000 70000.000	0.000	36.000	2

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT									
CASE NUMBER	449							GROUP NUMBER	2
	.2884	0.000	90000.000	0.000	36.000				
CASE NUMBER	450							GROUP NUMBER	2
	.3108	5000.000	90000.000	0.000	36.000				
CASE NUMBER	451							GROUP NUMBER	2
	.3341	10000.000	90000.000	0.000	36.000				
CASE NUMBER	452							GROUP NUMBER	2
	.3559	15000.000	90000.000	0.000	36.000				
CASE NUMBER	453							GROUP NUMBER	2
	.3820	20000.000	90000.000	0.000	36.000				
CASE NUMBER	454							GROUP NUMBER	2
	.4123	25000.000	90000.000	0.000	36.000				
CASE NUMBER	455							GROUP NUMBER	2
	.4452	30000.000	90000.000	0.000	36.000				
CASE NUMBER	456							GROUP NUMBER	2
	.4526	31000.000	90000.000	0.000	36.000				
CASE NUMBER	457							GROUP NUMBER	2
	.4601	32000.000	90000.000	0.000	36.000				
CASE NUMBER	458							GROUP NUMBER	2
	.4685	33000.000	90000.000	0.000	36.000				
CASE NUMBER	459							GROUP NUMBER	2
	.4770	34000.000	90000.000	0.000	36.000				
CASE NUMBER	460							GROUP NUMBER	2
	.4855	35000.000	90000.000	0.000	36.000				
CASE NUMBER	461							GROUP NUMBER	2
	.2942	0.000	100000.000	0.000	36.000				
CASE NUMBER	462							GROUP NUMBER	2
	.3178	5000.000	100000.000	0.000	36.000				
CASE NUMBER	463							GROUP NUMBER	2
	.3399	10000.000	100000.000	0.000	36.000				
CASE NUMBER	464							GROUP NUMBER	2
	.3645	15000.000	100000.000	0.000	36.000				

FRIDAY, JUL 2, 1976

DATA INPUT									
CASE NUMBER	465							GROUP NUMBER	2
	.3923	20000.000	100000.000	0.000	36.000				
CASE NUMBER	466							GROUP NUMBER	2
	.4233	25000.000	100000.000	0.000	36.000				
CASE NUMBER	467							GROUP NUMBER	2
	.4587	30000.000	100000.000	0.000	36.000				
CASE NUMBER	468							GROUP NUMBER	2
	.4668	31000.000	100000.000	0.000	36.000				
CASE NUMBER	469							GROUP NUMBER	2
	.4754	32000.000	100000.000	0.000	36.000				
CASE NUMBER	470							GROUP NUMBER	2
	.3026	0.000	120000.000	0.000	36.000				
CASE NUMBER	471							GROUP NUMBER	2
	.3287	5000.000	120000.000	0.000	36.000				
CASE NUMBER	472							GROUP NUMBER	2
	.3546	10000.000	120000.000	0.000	36.000				
CASE NUMBER	473							GROUP NUMBER	2
	.3817	15000.000	120000.000	0.000	36.000				
CASE NUMBER	474							GROUP NUMBER	2
	.4125	20000.000	120000.000	0.000	36.000				
CASE NUMBER	475							GROUP NUMBER	2
	.4456	25000.000	120000.000	0.000	36.000				
CASE NUMBER	476							GROUP NUMBER	2
	.4532	26000.000	120000.000	0.000	36.000				
CASE NUMBER	477							GROUP NUMBER	2
	.3163	0.000	145000.000	0.000	36.000				
CASE NUMBER	478							GROUP NUMBER	2
	.3437	5000.000	145000.000	0.000	36.000				
CASE NUMBER	479							GROUP NUMBER	2
	.3730	10000.000	145000.000	0.000	36.000				
CASE NUMBER	480							GROUP NUMBER	2
	.4032	15000.000	145000.000	0.000	36.000				

FRIDAY, JUL 2, 1976

DATA INPUT									
CASE NUMBER	481						GROUP NUMBER	2	
	.4091	16000.000	145000.000	0.000	36.000				
CASE NUMBER	482						GROUP NUMBER	2	
	.4152	17000.000	145000.000	0.000	36.000				
CASE NUMBER	483						GROUP NUMBER	2	
	.4216	18000.000	145000.000	0.000	36.000				
CASE NUMBER	484						GROUP NUMBER	2	
	.4281	19000.000	145000.000	0.000	36.000				
CASE NUMBER	485						GROUP NUMBER	2	
	.4351	20000.000	145000.000	0.000	36.000				
CASE NUMBER	486						GROUP NUMBER	2	
	.2542	0.000	70000.000	100.000	36.000				
CASE NUMBER	487						GROUP NUMBER	2	
	.2690	5000.000	70000.000	100.000	36.000				
CASE NUMBER	488						GROUP NUMBER	2	
	.2848	10000.000	70000.000	100.000	36.000				
CASE NUMBER	489						GROUP NUMBER	2	
	.3036	15000.000	70000.000	100.000	36.000				
CASE NUMBER	490						GROUP NUMBER	2	
	.3241	20000.000	70000.000	100.000	36.000				
CASE NUMBER	491						GROUP NUMBER	2	
	.3464	25000.000	70000.000	100.000	36.000				
CASE NUMBER	492						GROUP NUMBER	2	
	.3727	30000.000	70000.000	100.000	36.000				
CASE NUMBER	493						GROUP NUMBER	2	
	.4046	35000.000	70000.000	100.000	36.000				
CASE NUMBER	494						GROUP NUMBER	2	
	.4104	36000.000	70000.000	100.000	36.000				
CASE NUMBER	495						GROUP NUMBER	2	
	.4166	37000.000	70000.000	100.000	36.000				
CASE NUMBER	496						GROUP NUMBER	2	
	.4232	38000.000	70000.000	100.000	36.000				

FRIDAY, JUL 2, 1976

DATA INPUT									
CASE NUMBER	497						GROUP NUMBER	2	
	.2623	0.000	90000.000	100.000	36.000				
CASE NUMBER	498						GROUP NUMBER	2	
	.2795	5000.000	90000.000	100.000	36.000				
CASE NUMBER	499						GROUP NUMBER	2	
	.2983	10000.000	90000.000	100.000	36.000				
CASE NUMBER	500						GROUP NUMBER	2	
	.3197	15000.000	90000.000	100.000	36.000				
CASE NUMBER	501						GROUP NUMBER	2	
	.3423	20000.000	90000.000	100.000	36.000				
CASE NUMBER	502						GROUP NUMBER	2	
	.3687	25000.000	90000.000	100.000	36.000				
CASE NUMBER	503						GROUP NUMBER	2	
	.4006	30000.000	90000.000	100.000	36.000				
CASE NUMBER	504						GROUP NUMBER	2	
	.4078	31000.000	90000.000	100.000	36.000				
CASE NUMBER	505						GROUP NUMBER	2	
	.4152	32000.000	90000.000	100.000	36.000				
CASE NUMBER	506						GROUP NUMBER	2	
	.2667	0.000	100000.000	100.000	36.000				
CASE NUMBER	507						GROUP NUMBER	2	
	.2846	5000.000	100000.000	100.000	36.000				
CASE NUMBER	508						GROUP NUMBER	2	
	.3053	10000.000	100000.000	100.000	36.000				
CASE NUMBER	509						GROUP NUMBER	2	
	.3274	15000.000	100000.000	100.000	36.000				
CASE NUMBER	510						GROUP NUMBER	2	
	.3515	20000.000	100000.000	100.000	36.000				
CASE NUMBER	511						GROUP NUMBER	2	
	.3802	25000.000	100000.000	100.000	36.000				
CASE NUMBER	512						GROUP NUMBER	2	
	.3865	26000.000	100000.000	100.000	36.000				

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528
		.3931	27000.000100000.000	100.000	36.000	GROUP NUMBER	2										
		.4000	28000.000100000.000	100.000	36.000	GROUP NUMBER	2										
		.2754	0.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.2953	5000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.3191	10000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.3429	15000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.3704	20000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.3764	21000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.3826	22000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.3891	23000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.2868	0.000145000.000	100.000	36.000	GROUP NUMBER	2										
		.3096	5000.000145000.000	100.000	36.000	GROUP NUMBER	2										
		.3356	10000.000145000.000	100.000	36.000	GROUP NUMBER	2										
		.3529	15000.000145000.000	100.000	36.000	GROUP NUMBER	2										
		.3688	16000.000145000.000	100.000	36.000	GROUP NUMBER	2										
		.2363	0.000 70000.000	200.000	36.000	GROUP NUMBER	2										

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544
		.2471	5000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.2622	10000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.2788	15000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.2973	20000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.3187	25000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.3438	30000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.3733	35000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.3787	36000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.2439	0.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.2572	5000.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.2743	10000.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.2939	15000.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.3165	20000.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.3410	25000.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.3464	26000.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.3519	27000.000 90000.000	200.000	36.000	GROUP NUMBER	2										

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	GROUP NUMBER	2
		.3577	28000.000	90000.000	200.000	36.000													
		.3638	29000.000	90000.000	200.000	36.000													
		.2479	0.000	100000.000	200.000	36.000													
		.2625	5000.000	100000.000	200.000	36.000													
		.2809	10000.000	100000.000	200.000	36.000													
		.3018	15000.000	100000.000	200.000	36.000													
		.3254	20000.000	100000.000	200.000	36.000													
		.3517	25000.000	100000.000	200.000	36.000													
		.3575	26000.000	100000.000	200.000	36.000													
		.2564	0.000	120000.000	200.000	36.000													
		.2736	5000.000	120000.000	200.000	36.000													
		.2943	10000.000	120000.000	200.000	36.000													
		.3178	15000.000	120000.000	200.000	36.000													
		.3227	16000.000	120000.000	200.000	36.000													
		.3278	17000.000	120000.000	200.000	36.000													
		.3328	18000.000	120000.000	200.000	36.000													

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	GROUP NUMBER	2
		.3379	19000.000	120000.000	200.000	36.000													
		.3432	20000.000	120000.000	200.000	36.000													
		.2675	0.000	145000.000	200.000	36.000													
		.2875	5000.000	145000.000	200.000	36.000													
		.3115	10000.000	145000.000	200.000	36.000													
		.3162	11000.000	145000.000	200.000	36.000													
		.3211	12000.000	145000.000	200.000	36.000													
		.3260	13000.000	145000.000	200.000	36.000													
		.3156	0.000	70000.000	-50.000	-18.000													
		.3465	5416.667	70000.000	-50.000	-18.000													
		.3750	10357.143	70000.000	-50.000	-18.000													
		.3965	15000.000	70000.000	-50.000	-18.000													
		.4116	20000.000	70000.000	-50.000	-18.000													
		.4374	25000.000	70000.000	-50.000	-18.000													
		.4734	30000.000	70000.000	-50.000	-18.000													
		.5211	35000.000	70000.000	-50.000	-18.000													

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593
		.5474	.5486	.5502	.5505	.5543	.5598	.3165	.3504	.3818	.4050	.4356	.4701	.5100	.5482	.5495	.5500	
		40000.000	41000.000	42000.000	43000.000	44000.000	45000.000	0.000	5000.000	10000.000	15000.000	20000.000	25000.000	30000.000	35000.000	36000.000	37000.000	
		70000.000	70000.000	70000.000	70000.000	70000.000	70000.000	90000.000	90000.000	90000.000	90000.000	90000.000	90000.000	90000.000	90000.000	90000.000	90000.000	
		-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	
		-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	
	GROUP NUMBER	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608
		.5507	.5555	.5611	.5620	.5745	.3882	.4170	.4427	.4808	.5217	.5500	.5509	.5566	.5629	.3346	.3707
		38000.000	39000.000	40000.000	0.000	5000.000	10000.000	15000.000	20000.000	25000.000	30000.000	35000.000	38000.000	37000.000	38000.000	0.000	5000.000
		90000.000	90000.000	90000.000	100000.000	100000.000	100000.000	100000.000	100000.000	100000.000	100000.000	100000.000	100000.000	100000.000	100000.000	120000.000	120000.000
		-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000
		-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000
	GROUP NUMBER	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER				GROUP NUMBER
	609				1
	.4078	10000.000120000.000	-50.000	-18.000	1
CASE NUMBER	610				1
	.4378	15000.000120000.000	-50.000	-18.000	1
CASE NUMBER	611				1
	.4672	20000.000120000.000	-50.000	-18.000	1
CASE NUMBER	612				1
	.5026	25000.000120000.000	-50.000	-18.000	1
CASE NUMBER	613				1
	.5488	30000.000120000.000	-50.000	-18.000	1
CASE NUMBER	614				1
	.5489	31000.000120000.000	-50.000	-18.000	1
CASE NUMBER	615				1
	.5507	32000.000120000.000	-50.000	-18.000	1
CASE NUMBER	616				1
	.5547	33000.000120000.000	-50.000	-18.000	1
CASE NUMBER	617				1
	.5608	34000.000120000.000	-50.000	-18.000	1
CASE NUMBER	618				1
	.3455	0.000145000.000	-50.000	-18.000	1
CASE NUMBER	619				1
	.3857	5000.000145000.000	-50.000	-18.000	1
CASE NUMBER	620				1
	.4254	10000.000145000.000	-50.000	-18.000	1
CASE NUMBER	621				1
	.4555	14523.810145000.000	-50.000	-18.000	1
CASE NUMBER	622				1
	.4925	20000.000145000.000	-50.000	-18.000	1
CASE NUMBER	623				1
	.5342	25000.000145000.000	-50.000	-18.000	1
CASE NUMBER	624				1
	.5438	26000.000145000.000	-50.000	-18.000	1

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER				GROUP NUMBER
	625				1
	.5494	27000.000145000.000	-50.000	-18.000	1
CASE NUMBER	626				1
	.5501	28000.000145000.000	-50.000	-18.000	1
CASE NUMBER	627				1
	.2925	0.000 70000.000	0.000	-18.000	1
CASE NUMBER	628				1
	.3190	5000.000 70000.000	0.000	-18.000	1
CASE NUMBER	629				1
	.3473	10000.000 70000.000	0.000	-18.000	1
CASE NUMBER	630				1
	.3665	14464.286 70000.000	0.000	-18.000	1
CASE NUMBER	631				1
	.3885	20000.000 70000.000	0.000	-18.000	1
CASE NUMBER	632				1
	.4140	25238.095 70000.000	0.000	-18.000	1
CASE NUMBER	633				1
	.4415	30000.000 70000.000	0.000	-18.000	1
CASE NUMBER	634				1
	.4721	35000.000 70000.000	0.000	-18.000	1
CASE NUMBER	635				1
	.5066	40000.000 70000.000	0.000	-18.000	1
CASE NUMBER	636				1
	.5159	41000.000 70000.000	0.000	-18.000	1
CASE NUMBER	637				1
	.5240	42000.000 70000.000	0.000	-18.000	1
CASE NUMBER	638				1
	.5315	43000.000 70000.000	0.000	-18.000	1
CASE NUMBER	639				1
	.5385	44000.000 70000.000	0.000	-18.000	1
CASE NUMBER	640				1
	.3005	0.000 90000.000	0.000	-18.000	1

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656
		.3310	5000.000	90000.000	0.000	-18.000	GROUP NUMBER	1									
		.3601	10000.000	90000.000	0.000	-18.000	GROUP NUMBER	1									
		.3867	15000.000	90000.000	0.000	-18.000	GROUP NUMBER	1									
		.4112	20000.000	90000.000	0.000	-18.000	GROUP NUMBER	1									
		.4354	25000.000	90000.000	0.000	-18.000	GROUP NUMBER	1									
		.4665	30000.000	90000.000	0.000	-18.000	GROUP NUMBER	1									
		.5086	35000.000	90000.000	0.000	-18.000	GROUP NUMBER	1									
		.5182	36000.000	90000.000	0.000	-18.000	GROUP NUMBER	1									
		.5259	37000.000	90000.000	0.000	-18.000	GROUP NUMBER	1									
		.5328	38000.000	90000.000	0.000	-18.000	GROUP NUMBER	1									
		.5402	39000.000	90000.000	0.000	-18.000	GROUP NUMBER	1									
		.3082	0.000	100000.000	0.000	-18.000	GROUP NUMBER	1									
		.3393	5000.000	100000.000	0.000	-18.000	GROUP NUMBER	1									
		.3699	10000.000	100000.000	0.000	-18.000	GROUP NUMBER	1									
		.3959	15000.000	100000.000	0.000	-18.000	GROUP NUMBER	1									
		.4176	20000.000	100000.000	0.000	-18.000	GROUP NUMBER	1									

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672
		.4460	25000.000	100000.000	0.000	-18.000	GROUP NUMBER	1									
		.4797	30000.000	100000.000	0.000	-18.000	GROUP NUMBER	1									
		.5273	35000.000	100000.000	0.000	-18.000	GROUP NUMBER	1									
		.5343	36000.000	100000.000	0.000	-18.000	GROUP NUMBER	1									
		.3172	0.000	120000.000	0.000	-18.000	GROUP NUMBER	1									
		.3511	5000.000	120000.000	0.000	-18.000	GROUP NUMBER	1									
		.3832	10000.000	120000.000	0.000	-18.000	GROUP NUMBER	1									
		.4074	15000.000	120000.000	0.000	-18.000	GROUP NUMBER	1									
		.4343	20000.000	120000.000	0.000	-18.000	GROUP NUMBER	1									
		.4667	25000.000	120000.000	0.000	-18.000	GROUP NUMBER	1									
		.5107	30000.000	120000.000	0.000	-18.000	GROUP NUMBER	1									
		.5196	31000.000	120000.000	0.000	-18.000	GROUP NUMBER	1									
		.5286	32000.000	120000.000	0.000	-18.000	GROUP NUMBER	1									
		.3270	0.000	145000.000	0.000	-18.000	GROUP NUMBER	1									
		.3621	5000.000	145000.000	0.000	-18.000	GROUP NUMBER	1									
		.3975	10000.000	145000.000	0.000	-18.000	GROUP NUMBER	1									

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	GROUP NUMBER
.4247 15000.000145000.000	673	1
.4247 15000.000145000.000	674	1
.4562 20000.000145000.000	675	1
.4940 25000.000145000.000	676	1
.5029 26000.000145000.000	677	1
.2648 0.000 70000.000	678	1
.2898 5000.000 70000.000	679	1
.3133 10000.000 70000.000	680	1
.3333 15000.000 70000.000	681	1
.3508 20000.000 70000.000	682	1
.3722 25000.000 70000.000	683	1
.3964 30000.000 70000.000	684	1
.4242 35000.000 70000.000	685	1
.4510 40000.000 70000.000	686	1
.4574 41000.000 70000.000	687	1
.2750 0.000 90000.000	688	1
.3019 5000.000 90000.000	689	1

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	GROUP NUMBER
.3259 10000.000 90000.000	690	1
.3449 15000.000 90000.000	691	1
.3667 20000.000 90000.000	692	1
.3915 25000.000 90000.000	693	1
.4201 30000.000 90000.000	694	1
.4525 35000.000 90000.000	695	1
.4589 36000.000 90000.000	696	1
.2783 0.000100000.000	697	1
.3054 5000.000100000.000	698	1
.3312 10000.000100000.000	699	1
.3517 15000.000100000.000	700	1
.3749 20000.000100000.000	701	1
.4014 25000.000100000.000	702	1
.4317 30000.000100000.000	703	1
.4380 31000.000100000.000	704	1
.4446 32000.000100000.000	705	1

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	705				GROUP NUMBER	1
		.4517	33000.000100000.000	100.000	-18.000		
		.2865	0.000120000.000	100.000	-18.000		
		.3150	5000.000120000.000	100.000	-18.000		
		.3425	10000.000120000.000	100.000	-18.000		
		.3654	15000.000120000.000	100.000	-18.000		
		.3914	20000.000120000.000	100.000	-18.000		
		.4209	25000.000120000.000	100.000	-18.000		
		.4274	26000.000120000.000	100.000	-18.000		
		.4339	27000.000120000.000	100.000	-18.000		
		.4405	28000.000120000.000	100.000	-18.000		
		.2987	0.000145000.000	100.000	-18.000		
		.3299	5000.000145000.000	100.000	-18.000		
		.3571	10000.000145000.000	100.000	-18.000		
		.3831	15000.000145000.000	100.000	-18.000		
		.4118	20000.000145000.000	100.000	-18.000		
		.4178	21000.000145000.000	100.000	-18.000		

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	721				GROUP NUMBER	1
		.4240	22000.000145000.000	100.000	-18.000		
		.4307	23000.000145000.000	100.000	-18.000		
		.2515	0.000 70000.000	200.000	-18.000		
		.2724	5000.000 70000.000	200.000	-18.000		
		.2867	10000.000 70000.000	200.000	-18.000		
		.3021	15000.000 70000.000	200.000	-18.000		
		.3212	20000.000 70000.000	200.000	-18.000		
		.3417	25000.000 70000.000	200.000	-18.000		
		.3645	30000.000 70000.000	200.000	-18.000		
		.3915	35000.000 70000.000	200.000	-18.000		
		.3965	36000.000 70000.000	200.000	-18.000		
		.4015	37000.000 70000.000	200.000	-18.000		
		.4069	38000.000 70000.000	200.000	-18.000		
		.4125	39000.000 70000.000	200.000	-18.000		
		.4184	40000.000 70000.000	200.000	-18.000		
		.2572	0.000 90000.000	200.000	-18.000		

# NADC-77036-30

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	GROUP NUMBER
.2799	5000.000 90000.000	200.000 -18.000
.2977	10000.000 90000.000	200.000 -18.000
.3163	15000.000 90000.000	200.000 -18.000
.3372	20000.000 90000.000	200.000 -18.000
.3606	25000.000 90000.000	200.000 -18.000
.3880	30000.000 90000.000	200.000 -18.000
.3940	31000.000 90000.000	200.000 -18.000
.4002	32000.000 90000.000	200.000 -18.000
.4066	33000.000 90000.000	200.000 -18.000
.4131	34000.000 90000.000	200.000 -18.000
.2604	0.000100000.000	200.000 -18.000
.2838	5000.000100000.000	200.000 -18.000
.3036	10000.000100000.000	200.000 -18.000
.3233	15000.000100000.000	200.000 -18.000
.3451	20000.000100000.000	200.000 -18.000
.3704	25000.000100000.000	200.000 -18.000

FRIDAY, JUL 2, 1976

DATA INPUT	CASE NUMBER	GROUP NUMBER
.3998	30000.000100000.000	200.000 -18.000
.4062	31000.000100000.000	200.000 -18.000
.2669	0.000120000.000	200.000 -18.000
.2922	5000.000120000.000	200.000 -18.000
.3157	10000.000120000.000	200.000 -18.000
.3369	15000.000120000.000	200.000 -18.000
.3613	20000.000120000.000	200.000 -18.000
.3897	25000.000120000.000	200.000 -18.000
.3958	26000.000120000.000	200.000 -18.000
.2765	0.000145000.000	200.000 -18.000
.3034	5000.000145000.000	200.000 -18.000
.3299	10000.000145000.000	200.000 -18.000
.3538	15000.000145000.000	200.000 -18.000
.3595	16000.000145000.000	200.000 -18.000
.3647	17000.000145000.000	200.000 -18.000
.3701	18000.000145000.000	200.000 -18.000

FRIDAY, JUL 2, 1976

DATA INPUT									
CASE NUMBER	769					GROUP NUMBER	1		
	.3757	19000.000	145000.000	200.000	-18.000				
CASE NUMBER	770					GROUP NUMBER	1		
	.3814	20000.000	145000.000	200.000	-18.000				

FRIDAY, JUL 2, 1976

## VARIABLE MEANS FOR EACH GROUP

## GROUP NO. 1

( X( 7) .3426446E+01) ( X(19) .1571350E+03) ( DC .5673317E+02) ( X(18) .6945226E+02) ( X( 6) .1317380E+01) ( X(16) .1138398E+01)  
 ( X(26) -.1202251E+02) ( X(10) .1227600E+04) ( X( 8) .3219179E+00) ( X(27) -.3178597E+02) ( X(11) .1240025E+05) ( X(23) .3744072E+05)  
 ( X(13) -.2937815E+04) ( X(28) -.2916512E+01) ( X(25) .1536565E+08) ( X(20) .1825670E+02) ( X(14) .4291789E+00) ( X(30) -.3895293E+04)  
 ( DT -.9067332E+01) ( X(15) .3431590E+04) ( X(43) -.1409095E+04) ( X(21) .7052837E+05) ( X(47) -.3534528E+06) ( X(31) -.1029865E+05)  
 ( X(42) -.6195607E+03) ( X(46) -.1441665E+06) ( X(36) -.1643431E+06) ( MACH .4055491E+00)

## GROUP NO. 2

( X( 7) .2947945E+01) ( X(19) .1285165E+03) ( DC .5487805E+02) ( X(18) .6271224E+02) ( X( 6) .1244699E+01) ( X(16) .9780265E+00)  
 ( X(26) .3326571E+02) ( X(10) .1242563E+04) ( X( 8) .3209833E+00) ( X(27) .7839730E+02) ( X(11) .1187669E+05) ( X(23) .2995849E+05)  
 ( X(13) .2585678E+05) ( X(28) .8619331E+01) ( X(25) .1442844E+08) ( X(20) .1771076E+02) ( X(14) .4043889E+00) ( X(30) .3189213E+05)  
 ( DT .2682927E+02) ( X(15) .2961932E+04) ( X(43) .3384588E+04) ( X(21) .6526506E+05) ( X(47) .7921608E+06) ( X(31) .7465061E+05)  
 ( X(42) .1674125E+04) ( X(46) .3724962E+06) ( X(36) .1426390E+07) ( MACH .3799314E+00)

FRIDAY, JUL 2, 1976

TABLE OF MEANS (TOTAL)

VARIABLE	MEAN
X( 7)	.3197138E+01
X(19)	.1434204E+03
DC	.5584416E+02
X(18)	.6622230E+02
X( 6)	.1282550E+01
X(16)	.1061545E+01
X(26)	.9580547E+01
X(10)	.1234771E+04
X( 8)	.3214700E+00
X(27)	.2101615E+02
X(11)	.1214935E+05
X(23)	.3385508E+05
X(13)	.1086115E+05
X(28)	.2611704E+01
X(25)	.1491652E+08
X(20)	.1799508E+02
X(14)	.4172990E+00
X(30)	.1325478E+05
DT	.8135065E+01
X(15)	.3206520E+04
X(43)	.8881371E+03
X(21)	.6800608E+05
X(47)	.1955490E+06
X(31)	.3041080E+05
X(42)	.4796213E+03
X(46)	.1034290E+06
X(36)	.5979694E+06
MACH	.3932726E+00

CORRELATION MATRIX  
FOR TOTAL.

FRIDAY, JUL 2, 1976

	X( 7)	X(19)	DC	X(18)	X( 6)	X(16)	X(26)	X(10)
X( 7)	.1000000E+01	.1480984E+00	-.1481202E+00	.3913292E-01	.8955821E+00	.9881686E+00	.2742821E-01	-.3294092E+00
X(19)	.1480984E+00	.1000000E+01	.7415936E+00	.9341646E+00	.1936931E+00	.1640656E+00	-.1018930E-01	-.1317796E+00
DC	-.1481202E+00	.7415936E+00	.1000000E+01	.8853786E+00	-.9928506E-01	-.1307539E+00	-.2279256E-01	-.1106941E-01
X(18)	.3913292E-01	.9341646E+00	.8853786E+00	.1000000E+01	.1334999E+00	.5067538E-01	-.1054992E-02	-.6994595E-01
X( 6)	.8955821E+00	.1936931E+00	-.9928506E-01	.1334999E+00	.1000000E+01	.8598355E+00	.9328349E-01	-.2206800E+00
X(16)	.9881686E+00	.1640656E+00	-.1307539E+00	.5067538E-01	.8598355E+00	.1000000E+01	.3105791E-01	-.4111000E+00
X(26)	.2742821E-01	-.1018930E-01	-.2279256E-01	-.1054992E-02	.9328349E-01	.3105791E-01	.1000000E+01	-.3869819E-01
X(10)	-.3294092E+00	-.1317796E+00	-.1106941E-01	-.6994595E-01	-.2206900E+00	-.4111000E+00	-.3869819E-01	.1000000E+01
X( 8)	.3439639E+00	.1405634E+00	.1146394E-01	.7143674E-01	.2219569E+00	.4484078E+00	.3294896E-01	-.9247761E+00
X(27)	.9582955E-01	.4549074E-02	-.3728851E-01	-.1021251E-01	.1284270E+00	.1019863E+00	.9400533E+00	-.7634951E-01
X(11)	-.1290592E+00	.6468771E+00	.9090107E+00	.7924525E+00	-.8832445E-01	-.1141613E+00	-.3252292E-01	-.6094733E-02
X(23)	.3183151E+00	.8838874E+00	.6293879E+00	.8238306E+00	.3341647E+00	.3294642E+00	-.2559000E-01	-.1727644E+00
X(13)	-.8528584E-01	.3657701E-01	-.4444767E-02	-.2087948E-01	-.5818818E-01	-.7635770E-01	.7872602E+00	-.5677992E-02
X(28)	-.8354107E-01	.3103696E-01	-.4369217E-02	-.1774361E-01	-.5399218E-01	-.7133782E-01	.9052939E+00	-.4479659E-01
X(25)	-.2317805E+00	.3161413E+00	.6632666E+00	.5048309E+00	-.1644912E+00	-.2488599E+00	-.4497503E-01	.4148643E+00
X(20)	-.1219984E+00	.7708620E+00	.9900639E+00	.8928768E+00	-.8035901E-01	-.9928599E-01	-.1896318E-01	-.7624777E-01
X(14)	.9173184E+00	.2189178E+00	-.8447237E-01	.1424490E+00	.9657840E+00	.9185787E+00	.9354918E-01	-.4151484E+00
X(30)	.9623668E-01	.7751982E-03	-.2866290E-01	.6062744E-02	.1584260E+00	.9842036E-01	.8825721E+00	-.5776039E-01
DT	-.9973136E-01	.3786118E-01	-.5931092E-02	-.2232605E-01	-.6557288E-01	-.9124090E-01	.8997869E+00	-.8336950E-03
X(15)	.4848458E+00	.3159327E-01	.1693866E+00	-.5618695E-01	.5813097E+00	.3577079E+00	-.1920303E-01	.4625856E+00
X(43)	.2053649E-02	.1817560E+00	.1955990E+00	.2185785E+00	.3206213E-01	.9630069E-02	.3822347E+00	-.5522201E-01
X(21)	-.2191853E+00	.4062776E+00	.7625072E+00	.6013149E+00	-.1568262E+00	-.2247616E+00	-.4114109E-01	.3154028E+00
X(47)	.7620306E-02	.1242115E+00	.1471377E+00	.1642355E+00	.4474538E-01	.1313651E-01	.5550746E+00	-.5298377E-01
X(31)	.2117256E+00	.7171679E-02	-.5476717E-01	-.1002716E-01	.2236060E+00	.2173335E+00	.8282974E+00	-.1150480E+00
X(42)	-.3280845E+00	.1930899E+00	.2638462E+00	.2655262E+00	.1257994E-01	-.2524602E-01	.4271604E+00	-.4048974E-01
X(46)	-.3398059E-01	.1387700E+00	.2112515E+00	.2097699E+00	.2021047E-01	-.2856147E-01	.5683933E+00	-.3376807E-01
X(36)	-.1023077E+00	.2370577E+00	.4130256E+00	.3328819E+00	-.7374628E-01	-.9150708E-01	.3202090E+00	-.1097906E-01
MACH	.8121824E+00	-.3017087E+00	-.5874965E+00	-.4169496E+00	.7716204E+00	.7526158E+00	-.5748248E-01	.7503011E-02

FRIDAY, JUL 2, 1976

	X(8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X(7)	.3439639E+00	.9582955E-01	-.1290592E+00	.3183151E+00	-.8528584E-01	-.8354107E-01	-.2317805E+00	-.1219984E+00
X(19)	.1405634E+00	-.4549074E-02	.6468771E+00	.8838874E+00	-.3657701E-01	-.3103696E-01	.3161413E+00	.7708620E+00
DC	.1146394E-01	-.3728851E-01	.9090107E+00	.6293879E+00	-.4444767E-02	-.4369217E-02	.6632666E+00	.9900639E+00
X(18)	.7143674E-01	-.1021251E-01	.7924525E+00	.8238306E+00	-.2087948E-01	-.1774361E-01	.5048309E+00	.8928768E+00
X(6)	.2215569E+00	.1284270E+00	-.8832445E-01	.3341647E+00	-.5818818E-01	-.5399218E-01	-.1644912E+00	-.8035901E-01
X(16)	.4484078E+00	.1019863E+00	-.1141613E+00	.3294642E+00	-.7635770E-01	-.7133782E-01	-.2488599E+00	-.9928599E-01
X(26)	.3294896E-01	.9400533E+00	-.3252292E-01	-.2559000E-01	.7872602E+00	.9052939E+00	-.4497503E-01	-.1896318E-01
X(10)	-.9247761E+00	.7634951E-01	-.6094733E-02	-.1727644E+00	-.5677992E-02	-.4479659E-01	.4148643E+00	-.7624777E-01
X(8)	.1000000E+01	.7486227E-01	.7439575E-02	.1841642E+00	.2428671E-02	.4355972E-01	-.3833942E+00	.8243044E-01
X(27)	.7486227E-01	.1000000E-01	-.4790406E-01	-.1278360E-01	.6604383E+00	.7906906E+00	-.6490964E-01	-.3123194E-01
X(11)	.7439575E-02	-.4790406E-01	.1000000E+01	.6901062E+00	-.7348666E-02	-.1403004E-01	.7310381E+00	.9000077E+00
X(23)	.1841642E+00	-.1278360E-01	.6901062E+00	.1000000E+01	-.5750569E-01	-.6061437E-01	.3180115E+00	.6611804E+00
X(13)	.2428671E-02	.6604383E+00	-.7348666E-02	-.5750569E-01	.1000000E+01	.8774309E+00	-.6682857E-02	-.4444337E-02
X(28)	.4355972E-01	.7906906E+00	-.1403004E-01	-.6061437E-01	.8774309E+00	.1000000E+01	-.3158351E-01	-.6945312E-03
X(25)	-.3833942E+00	-.6490964E-01	.7310381E+00	.3180115E+00	-.6682857E-02	-.3158351E-01	.1000000E+01	.5742277E+00
X(20)	.8243044E-01	-.3123194E-01	.9000077E+00	.6611804E+00	-.4444337E-02	-.6945312E-03	.5742277E+00	.1000000E+01
X(14)	.4440335E+00	.1387982E+00	-.7582608E-01	.3596872E+00	-.5084143E-01	-.3872798E-01	-.2314684E+00	-.5145400E-01
X(30)	.5427870E-01	.8206244E-00	-.3144236E-01	.4050198E-02	.8884022E+00	.7965167E+00	-.4659599E-01	-.2432516E-01
DT	-.4403357E-02	.7672831E+00	-.1432664E-01	.6750658E-01	.8841897E+00	.9914249E+00	-.1623633E-01	-.5237786E-02
X(15)	-.4728663E+00	-.3124121E-02	-.1446265E+00	.6922802E-01	-.9584494E-01	-.1140996E+00	.3845761E-01	-.1882485E+00
X(43)	.4849410E-01	.3439819E+00	.1557162E+00	.1278894E+00	.2890517E+00	.3553495E+00	.6545466E-01	.2028198E+00
X(21)	-.2924691E+00	-.5853250E-01	.6940357E+00	.3158895E+00	-.7892517E-02	-.2515182E-01	.9168494E+00	.6707952E+00
X(47)	.4336256E-01	.5382307E+00	.1531267E+00	.1207449E+00	.4055466E+00	.4951666E+00	.6139087E-01	.1534203E+00
X(31)	.1169786E+00	.8779670E+00	-.5742841E-01	.2665911E-01	.7433449E+00	.6905256E+00	-.8413093E-01	-.4650222E-01
X(42)	.2937773E-01	.3370820E+00	.2260538E+00	.1434794E+00	.3661237E+00	.4248269E+00	.1325700E+00	.2654038E+00
X(46)	.2055553E-01	.4805520E+00	.2264688E+00	.1365559E+00	.4728207E+00	.5462698E+00	.1324018E+00	.2126080E+00
X(36)	.4520082E-02	.2180839E+00	.3761232E+00	.1864229E+00	.4571587E+00	.4014198E+00	.2745154E+00	.4074261E+00
MACH	-.1360843E-01	.5569607E-02	-.4980879E+00	-.8544741E-01	-.1589832E+00	-.1763325E+00	-.3657640E+00	-.5803978E+00

FRIDAY, JUL 2, 1976

	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X(7)	.9173184E+00	.9623668E-01	-.9972136E-01	.4848458E+00	.2053649E-02	-.2191853E+00	.7620306E-02	.2117256E+00
X(19)	.2189178E+00	.7751982E-03	-.3786118E-01	-.3159327E-01	.1817560E+00	.4062776E+00	.1242115E+00	.7171679E-02
DC	-.8447237E-01	-.2866290E-01	-.5931082E-02	-.1693866E+00	.1955990E+00	.7625072E+00	.1471377E+00	-.5476717E-01
X(18)	.1424480E+00	.6062744E-02	.2232605E-01	-.5618695E-01	.2185785E+00	.6013149E+00	.1642355E+00	-.1002716E-01
X(6)	.9657840E+00	.1584360E+00	-.4557288E-01	.5813097E+00	.3206213E-01	-.1568262E+00	.4474538E-01	.2236060E+00
X(16)	.9195787E+00	.9842036E-01	-.9124090E-01	.3577079E+00	.9630069E-02	-.2247616E+00	.1313651E-01	.2173335E+00
X(26)	.9354918E-01	.8825721E+00	-.8997869E-01	-.1920303E-01	.3822347E+00	-.4114109E-01	.5550746E+00	.8282974E+00
X(10)	-.4151484E+00	-.5776039E-01	-.8336950E-03	.4625856E+00	-.5522201E-01	.3154028E+00	-.5298377E-01	-.1150480E+00
X(8)	.4440335E+00	.5427870E-01	-.4403576E-02	-.4728663E-02	.4849410E-01	-.2924691E+00	.4336256E-01	.1169786E+00
X(27)	.1387982E+00	.8206244E+00	.7672831E+00	-.3124121E-02	.3439819E+00	-.5853250E-01	.5382307E+00	.8779670E+00
X(11)	-.7582608E-01	-.3144236E-01	-.1432664E-01	-.1446265E-01	.1557162E+00	.6940357E+00	.1531267E+00	-.5742841E-01
X(23)	.3596872E+00	.4050198E-02	-.6750658E-01	.6922802E-01	.1278894E+00	.3158895E+00	.1207449E+00	.2665911E-01
X(13)	-.5084143E-01	.8884022E+00	.8841897E+00	-.9584494E-01	.2890517E+00	-.7892517E-02	.4055466E+00	.7433449E+00
X(28)	-.3872798E-01	.7965167E+00	.9914249E+00	-.1140996E+00	.3553495E+00	-.2515182E-01	.4951666E+00	.6905256E+00
X(25)	-.2314684E+00	-.4659599E-01	-.1623633E-01	.3845761E-01	.6545466E-01	.9168494E+00	.6139087E-01	.8413093E-01
X(20)	-.5145400E-01	-.2432516E-01	-.5237786E-02	-.1882485E+00	.2028198E+00	.6707952E+00	.1534203E+00	-.4650222E-01
X(14)	.1000000E+01	.1589805E+00	.5991329E-01	.3814952E+00	.4307316E-01	-.2019692E+00	.5248852E-01	.2383397E+00
X(30)	.1589805E+00	.1000000E+01	.7895292E+00	.1869528E-01	.3259066E+00	-.4525322E-01	.4720277E+00	.9340484E+00
DT	-.5991329E-01	.7895292E+00	.1000000E+01	-.1000000E+01	.3406114E+00	-.1447263E-01	.4786435E+00	.6662837E+00
X(15)	.3814952E+00	.1869528E-01	-.1000000E-01	.1000000E+01	-.5366118E-01	-.4039773E-01	-.4172974E-01	.4915358E-01
X(43)	.4307316E-01	.3259066E+00	.3406114E+00	-.5366118E-01	.1000000E+01	.9692837E-01	.8910296E+00	.2900038E+00
X(21)	-.2019692E+00	-.4525322E-01	-.1447263E-01	-.4039773E-01	.9692837E-01	.1000000E+01	.6465250E-01	-.7881104E-01
X(47)	.5248852E-01	.4720277E+00	.4786435E+00	-.4172974E-01	.8910296E+00	.6465250E-01	.1000000E+01	.4524984E+00
X(31)	.2383397E+00	.9340484E+00	.6662837E+00	.4915358E-01	.2900038E+00	-.7881104E-01	.4524984E+00	.1000000E+01
X(42)	.1983689E-01	.3717351E+00	.4199177E+00	-.7262145E-01	.9369673E+00	.1679553E+00	.8546321E+00	.2861898E+00
X(46)	.2355640E-01	.4944712E+00	.5424240E+00	-.6168166E-01	.8358973E+00	.1299555E+00	.9354202E+00	.4086038E+00
X(36)	-.6407210E-01	.3588906E+00	.4041628E+00	-.1163737E+00	.6570434E+00	.3130844E+00	.6018719E+00	.2387869E+00
MACH	.7027022E+00	.7210529E-02	-.1762167E+00	.6930534E+00	-.1420289E+00	-.4528083E+00	-.1118815E+00	.1052065E+00

FRIDAY, JUL 2, 1976

	X(42)	X(46)	X(36)	MACH
X( 7)	-3290845E-01	-3398059E-01	-1023077E+00	.8121824E+00
X(19)	.1930899E+00	.1387700E+00	.2370577E+00	-.3017087E+00
DC	.2638462E+00	.2112515E+00	.4130256E+00	-.5874965E+00
X(18)	.2655262E+00	.2097699E+00	.3328819E+00	-.4169496E+00
X( 6)	.1257994E-01	.2021047E-01	-.7374628E-01	.7716204E+00
X(16)	-.2524602E-01	-.2856147E-01	-.9150708E-01	.7526158E+00
X(26)	.4271604E+00	.5683933E+00	.3202090E+00	-.5748248E-01
X(10)	-.4048974E-01	-.3376807E-01	-.1097906E-01	.7503011E-02
X( 8)	.2937773E-01	.2055553E-01	.4520082E-02	-.1360843E-01
X(27)	.3370820E+00	.4805520E+00	.2180839E+00	.5569607E-02
X(11)	.2260538E+00	.2264688E+00	.3761232E+00	-.4980879E+00
X(23)	.1434794E+00	.1365559E+00	.1864229E+00	-.8544741E-01
X(13)	.3661237E+00	.4728207E+00	.4571587E+00	-.1589832E+00
X(28)	.4248269E+00	.5462698E+00	.4014198E+00	-.1763325E+00
X(25)	.1325700E+00	.1324018E+00	.2745154E+00	-.3657640E+00
X(20)	.2654038E+00	.2126080E+00	.4074261E+00	-.5803978E+00
X(14)	.1983689E-01	.2355640E-01	-.6407210E-01	.7027022E+00
X(30)	.3717351E+00	.4944712E+00	.3588906E+00	.7210529E-02
DT	.4199177E+00	.5424240E+00	.4041628E+00	-.1762167E+00
X(15)	-.7262145E-01	-.6168166E-01	-.1163737E+00	.6930534E+00
X(43)	.9369672E+00	.8358973E+00	.6570434E+00	-.1420289E+00
X(21)	.1679553E+00	.1299555E+00	.3130844E+00	-.4528083E+00
X(47)	.8546321E+00	.9354202E+00	.6018719E+00	-.1118815E+00
X(31)	.2861898E+00	.4086038E+00	.2387869E+00	.1052065E+00
X(42)	.1000000E+01	.9149255E+00	.7965757E+00	-.1981790E+00
X(46)	.9149255E+00	.1000000E+01	.7353229E+00	-.1707209E+00
X(36)	.7965757E+00	.7353229E+00	.1000000E+01	-.3084184E+00
MACH	-.1981790E+00	-.1707209E+00	-.3084184E+00	.1000000E+01

CORRELATION MATRIX  
FOR ERROR.

FRIDAY, JUL 2, 1976

	X( 7)	X(19)	DC	X(18)	X( 6)	X(16)	X(26)	X(10)
X( 7)	.1000000E+01	.1451411E+00	-.1497504E+00	.3686948E-01	.8954186E+00	.9880878E+00	.1762546E+00	-.3301450E+00
X(19)	.1451411E+00	.1000000E+01	.7418126E+00	.9341838E+00	.1917519E+00	.1613512E+00	.3554338E-01	-.1315610E+00
DC	-.1497504E+00	.7418126E+00	.1000000E+01	.8854603E+00	-.1001100E+00	-.1321590E+00	-.2512986E-01	-.1098947E-01
X(18)	.3686948E-01	.9341838E+00	.8854603E+00	.1000000E+01	.1321902E+00	.4860637E-01	.3269667E-01	-.6975954E-01
X( 6)	.8954186E+00	.1917519E+00	-.1001100E+00	.1321902E+00	.1000000E+01	.8593278E+00	.2428755E+00	-.2206161E+00
X(16)	.9880878E+00	.1613512E+00	-.1321590E+00	.4860637E-01	.8593278E+00	.1000000E+01	.1734521E+00	-.4120200E+00
X(26)	.1762546E+00	.3554338E-01	-.2512986E-01	.3269667E-01	.2428755E+00	.1734521E+00	.1000000E+01	.7621536E-01
X(10)	-.3301450E+00	-.1315610E+00	-.1098947E-01	-.6975954E-01	-.2206161E+00	-.4120200E+00	-.7621536E-01	.1000000E+01
X( 8)	.3444352E+00	.1402172E+00	.1134952E-01	.7116201E-01	.2216660E+00	.4491739E+00	.7139347E-01	-.9247746E+00
X(27)	.2218910E+00	.3026692E-01	-.4194226E-01	.9895258E-02	.2356984E+00	.2241106E+00	.8997274E+00	-.1123154E+00
X(11)	-.1312995E+00	.6468027E+00	.9090188E+00	.7923926E+00	-.8958870E-01	-.1161497E+00	-.3185123E-01	-.5955834E-02
X(23)	.3143169E+00	.8838644E+00	.6300669E+00	.8241383E+00	.3314764E+00	.3257573E+00	.4268394E-01	-.1725921E+00
X(13)	-.2467042E-01	.1266134E-01	.3513321E-02	-.3932784E-02	.1873731E-01	-.1851105E-01	.5175161E+00	-.1640618E-01
X(28)	.2787399E-02	.7495948E-02	.9179753E-02	.1044730E-01	.4690019E-02	.1670576E-01	.7004569E+00	-.1121886E+00
X(25)	-.2346184E+00	.3157320E+00	.6632300E+00	.5046182E+00	-.1659917E+00	-.2515093E+00	-.5132155E-01	.4150944E+00
X(20)	-.1234170E+00	.7711339E+00	.9900635E+00	.8929771E+00	-.8108574E-01	-.1004801E+00	-.1993722E-01	-.7618015E-01
X(14)	.9174169E+00	.2171230E+00	-.8522185E-01	.1412103E+00	.9656567E+00	.9185232E+00	.2392475E+00	-.4154214E+00
X(30)	.2039655E+00	.3299718E-01	-.2907249E-01	.2877903E-01	.2574390E+00	.2013209E+00	.8104973E+00	-.8149956E-01
DT	-.3159018E-01	.6735829E-02	.6210086E-02	.1078447E-02	-.1983314E-01	-.2558005E-01	.6800943E+00	-.1837622E-01
X(15)	.4807623E+00	-.3497184E-01	-.1707910E+00	-.5852302E-01	.5792072E+00	.3529249E+00	.7994350E-01	.4648888E+00
X(43)	.3298928E-01	.2034877E+00	.2085173E+00	.2377637E+00	.5408944E-01	.3886499E-01	.2419592E+00	-.6064109E-01
X(21)	-.2218800E+00	.4059777E+00	.7624883E+00	.6011615E+00	-.1582551E+00	-.2272329E+00	.4598545E-01	.3156020E+00
X(47)	.5370646E-01	.1556975E+00	.1671785E+00	.1935394E+00	.7942416E-01	.5672324E-01	.3958036E+00	-.6244530E-01
X(31)	.3128727E+00	.3323256E-01	-.5866664E-01	.4308970E-02	.3055924E+00	.3152086E+00	.7918027E+00	-.1414820E+00
X(42)	.3363645E-02	.2242091E+00	.2485543E+00	.2968252E+00	.3829677E-01	.8910735E-02	.2282272E+00	-.4702718E-01
X(46)	.1396051E-01	.1799316E+00	.2464493E+00	.2534989E+00	.5805698E-01	.1657009E-01	.3474840E+00	-.4309399E-01
X(36)	-.7567517E-01	.2641323E+00	.4399444E+00	.3607273E+00	-.5633815E-01	-.6640396E-01	.1062139E+00	-.1444481E-01
MACH	.8109386E+00	-.3120856E+00	-.5966344E+00	-.4265434E+00	.7728858E+00	-.7509228E+00	.1192231E+00	.8931993E-02

FRIDAY, JUL 2, 1976

	X(8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X(7)	.3444352E+00	.2218910E+00	-.1312995E+00	.3143169E+00	-.2467042E-01	.2787399E-02	-.2346184E+00	-.1234170E+00
X(19)	.1402172E+00	.3026692E-01	-.6468027E+00	.8838644E+00	-.1266134E-01	.7495948E-02	.3157320E+00	.7711339E+00
DC	.1134952E-01	-.4194226E-01	.9090188E+00	.6300659E+00	.3513221E-02	.9178753E-02	.6632300E+00	.8900635E+00
X(18)	.7116201E-01	.9895258E-02	.7923926E+00	.8241383E+00	-.3932784E-02	.1044730E-01	.5045182E+00	.8929771E+00
X(6)	.2216660E+00	.2356984E+00	-.8958870E-01	.3314754E+00	-.1873731E-01	.4690019E-02	-.1659917E+00	-.8108574E-01
X(16)	.4491739E+00	.2241106E+00	-.1161487E+00	.3257573E+00	-.1851105E-01	.1670576E-01	.2515093E+00	-.1004801E+00
X(26)	.7139347E-01	.8897274E+00	-.3185123E-01	.4268394E-01	.5175161E+00	.7004569E+00	.5132155E-01	-.1993722E-01
X(10)	-.9247746E+00	-.1123154E+00	-.5955834E-02	-.1725921E+00	-.1640618E-01	-.1121886E+00	.4150944E+00	-.7618015E-01
X(8)	.1000000E+01	.1136336E+00	.7240693E-02	.1837943E+00	.1540189E-01	.1163550E+00	-.3836864E+00	.8233461E-01
X(27)	.1136336E+00	.1000000E+01	-.4981111E-01	.4188926E-01	.3413549E+00	.5473320E+00	-.7209520E-01	-.3450805E-01
X(11)	.7240693E-02	-.4981111E-01	.1000000E+01	.6905230E+00	.6576221E-02	.1981934E-02	.7309569E+00	.9000220E+00
X(23)	.1837943E+00	.4188926E-01	.6905230E+00	.1000000E+01	-.1780795E-01	-.9666282E-02	.3175626E+00	.6619778E+00
X(13)	.1540189E-01	.3413549E+00	.6576221E-02	-.1780795E-01	.1000000E+01	.7607697E+00	.8607333E-02	.2587540E-02
X(28)	.1163550E+00	.5473320E+00	-.1981934E-02	-.9666282E-02	.7607697E+00	.1000000E+01	-.3374101E-01	.1533453E-01
X(25)	-.3836864E+00	-.7209520E-01	.7309569E+00	.3175626E+00	.8607333E-02	-.3374101E-01	.1000000E+01	.5741841E+00
X(20)	.8233461E-01	-.3450805E-01	.9000220E+00	.6619778E+00	.2587540E-02	.1533453E-01	.5741841E+00	.1000000E+01
X(14)	.4441595E+00	.2470908E+00	-.7699865E-01	.3572254E+00	-.1129405E-01	.3190744E-01	-.2320181E+00	-.5208525E-01
X(30)	.7993664E-01	.6860881E+00	-.2681994E-01	.5734050E-01	.8047198E+00	.6540648E+00	-.4553700E-01	-.2421652E-01
DT	.1383638E-01	.4782879E+00	-.1705539E-02	-.2423473E-01	.7909716E+00	.9596573E+00	-.4042242E-03	.5922861E-02
X(15)	-.4755205E+00	.7353727E-01	-.1465516E+00	.6432313E-01	-.5272085E-01	.8787163E-01	.3710214E-01	-.1896409E+00
X(43)	.5472528E-01	.1950020E+00	.1689378E+00	.1550054E+00	.1082390E+00	.1927218E+00	.7449387E-01	.2158034E+00
X(21)	-.2927361E+00	-.6413403E-01	.6939471E+00	.3155842E+00	.6056712E-02	-.2147568E-01	.9168241E+00	.6707685E+00
X(47)	.5349921E-01	.3746181E+00	.1771668E+00	.1635527E+00	.1625506E+00	.2816520E+00	.7629344E-01	.1736872E+00
X(31)	.1460439E+00	.8304235E+00	-.5730075E-01	.7190159E-01	.6106451E+00	.5513549E+00	-.8824031E-01	-.4946287E-01
X(42)	.3649023E-01	.1196199E+00	.2506958E+00	.1807593E+00	.1532846E+00	.2156561E+00	.1502839E+00	.2898603E+00
X(46)	.2998580E-01	.2385872E+00	.2677632E+00	.1910728E+00	.2120759E+00	.2938534E+00	.1609965E+00	.2474895E+00
X(36)	.8844285E-02	-.4788214E-02	.4034171E+00	.2192105E+00	.3408649E+00	.2604146E+00	.2963735E+00	.4337064E+00
MACH	-.1569228E-01	.1581235E+00	-.5072687E+00	-.9692949E-01	-.6664463E-01	-.7802839E-01	-.3734073E+00	-.5892913E+00

FRIDAY, JUL 2, 1976

	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X(7)	.9174169E+00	.2039655E+00	-.3159018E-01	.4807623E+00	.3298928E-01	-.2218800E+00	.5370646E-01	.3128727E+00
X(19)	.2171230E+00	.3299718E-01	-.6735829E-02	-.3497184E-01	.2034877E+00	.4059777E+00	.1556975E+00	.3323256E-01
DC	-.8522185E-01	-.2907249E-01	.6210086E-02	-.1707910E+00	.2085173E+00	.7624883E+00	.1671785E+00	-.5866664E-01
X(18)	.1412103E+00	.2877903E-01	.1078447E-02	-.5852302E-01	.2377637E+00	.6011616E+00	.1935394E+00	.4308970E-02
X(6)	.9656567E+00	.2574390E+00	-.1983314E-01	.5792072E+00	.5408944E-01	-.1582551E+00	.7942416E-01	.3055924E+00
X(16)	.9185232E+00	.2013209E+00	-.2558005E-01	.3529249E+00	.3886499E-01	-.2272329E+00	.5672324E-01	.3152086E+00
X(26)	.2392475E+00	.8104973E+00	.6800943E+00	.7994350E-01	.2419592E+00	-.4599645E-01	.3958036E+00	.7918027E+00
X(10)	-.4154214E+00	-.6149956E-01	-.1837622E-01	.4648888E+00	-.6064109E-01	.3156020E+00	-.6244530E-01	-.1414820E+00
X(8)	.4441595E+00	.7993664E-01	.1383638E-01	-.4755205E+00	.5472528E-01	-.2927361E+00	.5349921E-01	.1460439E+00
X(27)	.2470908E+00	.6860881E+00	.4782879E+00	.7353727E-01	.1950020E+00	-.6413403E-01	.3746181E+00	.8304235E+00
X(11)	-.7699865E-01	-.2681994E-01	.1705539E-02	-.1465516E+00	.1689378E+00	.6939471E+00	.1771668E+00	-.5730075E-01
X(23)	.3572254E+00	.5734050E-01	-.2423473E-01	.6432313E-01	.1550054E+00	.3155842E+00	.1635527E+00	.7190159E-01
X(13)	-.1129405E-01	.8047198E+00	.7909716E+00	.5272085E-01	.1082390E+00	.6056712E-02	.1625506E+00	.1807593E+00
X(28)	.3190744E-01	.6540648E+00	.9596573E+00	-.8787163E-01	.1927218E+00	-.2147568E-01	.2816520E+00	.5513549E+00
X(25)	-.2320181E+00	-.4553700E-01	.4042242E-03	.3710214E-01	.7449387E-01	.9168241E+00	.7629344E-01	-.8824031E-01
X(20)	-.5208525E-01	-.2421652E-01	.5922861E-02	-.1896409E+00	.2158034E+00	.6707685E+00	.1736872E+00	-.4946287E-01
X(14)	.1000000E+01	.2556489E+00	-.1313604E-01	.3784762E+00	.6470658E-01	-.2034070E+00	.8657798E-01	.3211207E+00
X(30)	.2556489E+00	.1000000E+01	.6423445E+00	.9248067E-01	.1799410E+00	-.4447823E-01	.2890186E+00	.9103570E+00
DT	-.1313604E-01	.6423445E+00	.1000000E+01	-.5810776E-01	.1592429E+00	.1879478E-02	.2424034E+00	.4955257E+00
X(15)	.3784762E+00	.9248067E-01	-.5810776E-01	.1000000E+01	-.2990035E-01	-.4196888E-01	.7163520E-02	.1111415E+00
X(43)	.6470658E-01	.1799410E+00	.1592429E+00	-.2990035E-01	.1000000E+01	.1072809E+00	.8832842E+00	.1575178E+00
X(21)	-.2034070E+00	-.4447823E-01	.1879478E-02	-.4196888E-01	.1072809E+00	.1000000E+01	.7950787E-01	-.8246381E-01
X(47)	.8657798E-01	.2890186E+00	.2424034E+00	-.7163520E-02	.8832842E+00	.7950787E-01	.1000000E+01	.2939764E+00
X(31)	.3211207E+00	.9103570E+00	.4955257E+00	.1111415E+00	.1575178E+00	-.8246381E-01	.2939764E+00	.1000000E+01
X(42)	.4592463E-01	.1869769E+00	.2041433E+00	-.4496889E-01	.9317340E+00	-.1881211E+00	.8285528E+00	.1091626E+00
X(46)	.6023039E-01	.2788758E+00	.2844893E+00	-.2489666E-01	.8255558E+00	.1577470E+00	.9210862E+00	.2035267E+00
X(36)	-.4710544E-01	.2097121E+00	.2699373E+00	-.9494256E-01	.6195702E+00	.3368605E+00	.5419689E+00	.8169542E-01
MACH	.7032916E+00	.1412707E+00	-.7760486E-01	.6910031E+00	-.9956997E-01	-.4614434E+00	-.4964579E-01	.2280832E+00

FRIDAY, JUL 2, 1976

	X(42)	X(46)	X(36)	MACH
X(7)	.3363645E-02	.1396051E-01	-.7567517E-01	.8109386E-00
X(19)	.2242091E+00	.1799316E+00	.2641323E-00	-.3120856E+00
DC	.2885545E+00	.2464493E+00	.4399444E+00	-.5966344E+00
X(18)	.2968252E+00	.2534989E+00	.3607273E-00	-.4265434E+00
X(6)	.3929577E-01	.5805688E-01	.5633815E-01	.7728859E+00
X(16)	.8910737E-02	.1657009E-01	.6640396E-01	.7509228E+00
X(26)	.2282272E+00	.1474840E+00	.1062139E+00	.1192231E+00
X(10)	-.4702718E-01	-.4309399E-01	-.1444481E-01	.8931993E-02
X(8)	.3649023E-01	.2998580E-01	.8844285E-02	-.1569228E-01
X(27)	.1196199E+00	.2365872E+00	.4788214E-02	.1581235E+00
X(11)	.2506958E+00	.2677632E+00	.4034171E+00	-.5072687E+00
X(23)	.1807593E+00	.1910728E+00	.2192105E+00	-.9692949E-01
X(13)	.1532846E+00	.2120759E+00	.3408649E+00	-.6664463E-01
X(28)	.2156561E+00	.2938534E+00	.2604146E+00	-.7802839E-01
X(25)	.1502839E+00	.1609965E+00	.2963735E+00	-.3734073E+00
X(20)	.2898603E+00	.2474895E+00	.4337064E+00	-.5892913E+00
X(14)	.4592463E-01	.6023039E-01	-.4710544E-01	.7032916E+00
X(30)	.1869768E+00	.2788758E+00	.2097121E+00	.1412707E+00
DT	.2041433E+00	.2844893E+00	.2699373E+00	-.7760486E-01
X(15)	-.4496889E-01	-.2489666E-01	-.9494256E-01	.6910031E+00
X(43)	.9317340E+00	.8255558E+00	.6195702E+00	-.9956997E-01
X(21)	.1881211E+00	.1577470E+00	.3368605E+00	-.4614434E+00
X(47)	.8285528E+00	.9210862E+00	.5419689E+00	-.4964579E-01
X(31)	.1091636E+00	.2035267E+00	.8169542E-01	.2280832E+00
X(42)	.1000000E+01	.9039057E+00	.7697376E+00	-.1515145E+00
X(46)	.9039057E+00	.1000000E+01	.6986710E+00	-.1089439E+00
X(36)	.7697376E+00	.6986710E+00	.1000000E+01	-.2751341E+00
MACH	-.1515145E+00	-.1089439E+00	-.2751341E+00	.1000000E+01

SUMS OF SQUARES AND CROSS PRODUCT MATRIX  
FOR TOTAL.

FRIDAY, JUL 2, 1976

	X(7)	X(19)	DC	X(18)	X(6)	X(16)	X(26)	X(10)
X(7)	.4793711E+04	.1043505E+06	-.2704321E+05	.9919502E+04	.9848778E+03	.1703276E+04	.1483595E+04	-.5707330E+06
X(19)	.1043505E+06	.1036558E+09	.1990133E+08	.3480512E+08	.3130858E+05	.4156654E+05	-.8100922E+05	-.3355968E+08
DC	-.2704321E+05	.1990133E+08	.6953701E+07	.8547689E+07	-.4158464E+04	-.8583821E+04	.4695516E+05	-.7304553E+06
X(18)	.9919502E+04	.3480512E+08	.8547689E+07	.1340366E+08	.7763070E+04	.4618775E+04	.3017469E+04	-.6408193E+07
X(6)	.9848778E+03	.3130858E+05	-.4158464E+04	.7763070E+04	.2522796E+03	.3399966E+03	.1157518E+04	-.8771725E+05
X(16)	.1703276E+04	.4156654E+05	-.8583821E+04	.4618775E+04	.3399966E+03	.6197782E+03	.6040495E+03	-.2561102E+06
X(26)	.1483595E+04	.8100922E+05	.4695516E+05	-.3017469E+04	.1157518E+04	.6040495E+03	.6103293E+06	-.7565439E+06
X(10)	-.5707330E+06	-.3355968E+08	-.7304553E+06	-.6408193E+07	-.8771725E+05	-.2561102E+06	-.7565439E+06	.6262139E+09
X(8)	.2599576E+02	.1561472E+04	.3299859E+02	.2854874E+03	.3848251E+01	.1218555E+02	.2809813E+02	-.2526106E+05
X(27)	.1483326E+05	.1034981E+06	-.2198287E+06	.8358828E+05	.4560356E+04	.5676246E+04	.1641859E+07	-.4271387E+07
X(11)	-.3840816E+07	.2829622E+10	.1030328E+10	.1247049E+10	-.6030044E+06	-.1221619E+07	-.1092119E+08	-.6555631E+08
X(23)	.3605993E+08	.1471759E+11	.2715552E+10	.4934932E+10	.8684268E+07	.1342017E+08	.3271026E+08	-.7073711E+10
X(13)	-.3321631E+07	.2093895E+09	-.6593190E+07	.4300015E+08	.5198935E+06	-.1069325E+07	.3459704E+09	-.7992721E+08
X(28)	-.1044625E+04	.5704421E+05	-.2080827E+04	-.1173216E+05	-.1548803E+03	-.3207467E+03	.1277309E+06	-.2024560E+06
X(25)	-.1160664E+11	.2326929E+13	.1284998E+13	.1336754E+13	-.1889633E+10	-.4480917E+10	.2541250E+11	.7508638E+13
X(20)	-.7237611E+04	.6721869E+07	.2237054E+07	.2800970E+07	-.1093656E+04	-.2117929E+04	.1269400E+05	-.1634910E+07
X(14)	.3610340E+03	.1266430E+05	-.1266236E+04	.2964579E+04	.8719933E+02	.1299950E+03	.4154456E+03	-.5905502E+05
X(30)	.5212874E+07	.6171939E+07	-.5913285E+08	.1736527E+08	.1968773E+07	.1916919E+07	.5394274E+09	-.1130817E+10
DT	-.3844440E+04	-.2145199E+06	-.8707792E+04	-.4550813E+05	-.5798700E+03	-.1264658E+04	.3913697E+06	-.1161539E+05
X(15)	.2636386E+07	.2525062E+08	-.3507974E+08	-.1615535E+08	.7251334E+06	.6993846E+06	.1178206E+07	.9091233E+09
X(43)	.3098045E+05	.4030160E+09	.1123828E+09	.1743591E+09	.1109580E+06	.5223637E+05	.6506353E+08	-.3010919E+09
X(21)	-.6461647E+08	.1760463E+11	.8561461E+10	.9373668E+10	-.1060610E+08	-.2382518E+08	.1368529E+09	.3360646E+11
X(47)	.1969442E+08	.4718507E+11	.1448328E+11	.2244469E+11	.2652919E+08	.1220768E+08	.1618707E+11	.4949246E+11
X(31)	.3223916E+08	.1605105E+09	-.3176162E+09	-.8073539E+08	.7810861E+07	.1189924E+08	.1423124E+10	-.6331621E+10
X(42)	-.1926802E+06	.1666799E+09	.5901661E+08	.8245830E+08	.1694865E+05	-.5331218E+05	.2830665E+08	-.8594521E+08
X(46)	-.3497489E+08	.2099391E+11	.8281278E+10	.1141680E+11	.4772072E+07	-.1057032E+08	.6601164E+10	-.1256195E+11
X(36)	-.4820306E+09	.1641696E+12	.7411658E+11	.8293394E+11	-.7970977E+08	-.1550256E+09	.1702339E+11	-.1869635E+11
MACH	.1258247E+03	-.8670245E+04	-.3466487E+04	-.3415635E+04	.2742338E+02	.4192448E+02	-.1004833E+03	.4201198E+03

FRIDAY, JUL 2, 1976

	X( 8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X( 7)	.2599576E+02	.1483326E+05	-.3840816E+07	.3605993E+08	-.3321631E+07	-.1044625E+04	-.1160664E+11	-.7237611E+04
X(19)	.1561472E+04	-.1034981E+06	.2829622E+10	.1471759E+11	-.2093895E+09	-.5704421E+05	.2326929E+13	.6721869E+07
DC	.3299859E+02	-.2198287E+06	.1030328E+10	.2715552E+10	-.6593190E+07	-.2080827E+04	.1264998E+13	.2237054E+07
X(18)	.2854874E+03	-.8358828E+05	.1247049E+10	.4934932E+10	-.4300015E+08	-.1173216E+05	.1336754E+13	.2800970E+07
X( 6)	.3848251E+01	.4560356E+04	-.6030044E+06	.8684268E+07	-.5198935E+06	-.1548803E+03	-.1889633E+10	-.1093656E+04
X(16)	.1218555E+02	.5676246E+04	-.1221619E+07	.1342017E+08	-.1069325E+07	-.3207467E+03	-.4480917E+10	-.2117929E+04
X(26)	.2809813E+02	.1641859E+07	-.1092119E+08	.3271026E+08	.3459704E+09	.1277309E+06	-.2541250E+11	-.1269400E+05
X(10)	-.2526106E+05	-.4271387E+07	-.6555631E+08	-.7073711E+10	-.7992721E+08	-.2024560E+06	.7508638E+13	-.1634910E+07
X( 8)	.1191536E+01	.1826913E+03	.3490601E+04	.3289201E+06	.1491286E+04	.8587426E+01	-.3026865E+09	.7709861E+02
X(27)	.1826913E+03	.4998074E+07	-.4603330E+08	.4676125E+08	.8305621E+09	.3192509E+06	-.1049553E+12	-.5982815E+05
X(11)	.3490601E+04	-.4603330E+08	.1847553E+12	.4853400E+12	-.1776829E+10	-.1089135E+07	.2272649E+15	.3314744E+09
X(23)	.3289201E+06	-.4676125E+08	.4853400E+12	.2677092E+13	-.5292745E+11	-.1791148E+08	.3763295E+15	.9269513E+09
X(13)	.1491286E+04	.8305621E+09	-.1776829E+10	.5292745E+11	.3164296E+12	.8914064E+08	-.2718908E+13	-.2142154E+07
X(28)	.8587426E+01	.3192509E+06	-.1089135E+07	-.1791148E+08	.8914064E+08	.3261734E+05	-.4125519E+10	-.1074784E+03
X(25)	-.3026865E+09	-.1049553E+12	.2272649E+15	.3763295E+15	-.2718908E+13	-.4125519E+10	.5231035E+18	.3558633E+12
X(20)	.7709861E+02	-.5982815E+05	.3314744E+09	.9269513E+09	-.2142154E+07	-.1074784E+03	.3558633E+12	.7241935E+06
X(14)	.2755253E+01	.1763914E+04	-.1852717E+08	.3348404E+07	-.1625730E+06	.3975952E+02	-.9516507E+09	-.2506204E+03
X(30)	.4635364E+05	.1435312E+10	-.1057339E+11	.5184520E+10	.3909749E+12	.1125434E+09	-.2636593E+14	-.1630654E+08
DT	.2676237E+01	.9550417E+06	-.3428532E+07	.6148547E+08	.2769169E+09	.9968952E+05	-.6538034E+10	-.2498725E+04
X(15)	-.4053791E+05	-.5485277E+06	-.4882203E+10	.8895757E+10	-.4234256E+10	-.1618370E+07	.2184467E+13	-.1266795E+08
X(43)	.1153368E+05	.1675569E+09	.1458336E+11	.4562796E+11	.3542742E+11	.1398316E+08	.1031478E+14	.3786527E+08
X(21)	-.1359345E+07	-.5571785E+09	.1270212E+13	.2201406E+13	-.1890384E+11	-.1934148E+08	.2823500E+16	.4447323E+10
X(47)	.1766865E+07	.4491637E+11	.2456881E+13	.7374543E+13	.8515578E+13	.3338185E+10	.1657420E+16	.2907078E+10
X(31)	.2808243E+06	.4316721E+10	-.5428748E+11	.9592939E+11	.9156093E+12	.2742701E+09	-.1338209E+15	-.8763011E+08
X(42)	.2720115E+04	.6392228E+08	.8241867E+10	.1591300E+11	.1746955E+11	.6508061E+07	.8133066E+13	.1928980E+08
X(46)	.3335584E+06	.1597097E+11	.1447093E+13	.3321480E+13	.3953890E+13	.1466631E+10	.1423565E+16	.2708161E+10
X(36)	.3357611E+06	.3317839E+11	.1100168E+14	.2075684E+14	.1749992E+14	.4933482E+10	.1351111E+17	.2375661E+11
MACH	-.3323823E-01	.2786135E+02	-.4780499E+06	-.3128288E+06	-.2001088E+06	-.7125788E+02	-.5918309E+09	-.1112775E+04

FRIDAY, JUL 2, 1976

	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X( 7)	.3610340E+03	.5212874E+07	-.3844440E+04	.2636386E+07	.3098045E+05	-.6461647E+08	.1969442E+08	.3222916E+08
X(19)	.1266430E+05	.6171939E+07	-.2145199E+06	-.2525062E+08	.4030160E+09	.1760463E+11	.4718507E+11	.1605105E+09
DC	.1266236E+04	-.5913285E+08	-.8707792E+04	-.3507974E+08	.1123828E+09	.8561461E+10	.1448328E+11	-.3176162E+09
X(18)	.2964579E+04	.1736527E+08	-.4550813E+05	-.1615533E+08	.1743591E+09	.9373668E+10	.2244469E+11	.8077539E+08
X( 6)	.8719933E+02	.1968773E+07	-.5798700E+03	.7251334E+06	.1109580E+06	-.1060610E+08	.2652919E+08	.7810861E+07
X(16)	.1299950E+03	.1916919E+07	-.1264658E+04	.6993845E+06	.5223637E+05	-.2382518E+08	.1220768E+08	.1189924E+08
X(26)	.4154456E+03	.5394274E+09	.3913697E+06	-.1178206E+07	.6506353E+08	.1368529E+09	.1618707E+11	.1423124E+10
X(10)	-.5905502E+05	-.1130817E+10	-.1161539E+05	.9091233E+09	-.3010919E+09	.3360646E+11	-.4949246E+11	-.6331621E+10
X( 8)	.2755253E+01	.4635364E+05	-.2676237E+01	-.4053791E+05	.1153368E+05	.1359345E+07	.1766865E+07	.2808243E+06
X(27)	.1763914E+04	.1435312E+10	.9550417E+06	-.5485277E+06	.1675569E+09	-.5571785E+09	.4491637E+11	.4316721E+10
X(11)	-.1852717E+06	-.1057339E+11	-.3428532E+07	-.4882203E+10	.1458336E+11	.1270212E+13	.2456881E+13	-.5428748E+11
X(23)	.3345404E+07	.5184520E+10	-.6149547E+08	.8895757E+10	.4562796E+11	.2201406E+13	.7374543E+13	.9592939E+11
X(13)	-.1625730E+06	.3909749E+12	.2769169E+09	-.4234256E+10	.3542742E+11	-.1890384E+11	.8515578E+13	.9196093E+12
X(28)	-.3975952E+02	.1125434E+09	.9968952E+05	-.1618370E+07	.1398316E+08	-.1934148E+08	.3338185E+10	.2742701E+09
X(25)	-.9516507E+09	-.2636593E+14	-.6538034E+10	.2184467E+13	.1031478E+14	.2823500E+16	.1657420E+16	.1338209E+15
X(20)	-.2506204E+03	-.1630654E+08	-.2498725E+04	-.1266795E+08	.3786527E+08	.2447323E+10	.4907079E+10	-.8763011E+08
X(14)	.3231351E+02	.7070282E+06	-.1896185E+03	.1703141E+06	.5334876E+05	-.4888473E+07	.1113759E+08	.2979633E+07
X(30)	.7070282E+06	.6120704E+12	.3439017E+09	.1148688E+10	.5555451E+11	-.1507461E+12	.1378488E+14	.1607106E+13
DT	.1896185E+03	.3439017E+09	.3099780E+06	-.4375439E+07	.4131902E+08	-.3430907E+08	.9947465E+10	.8158288E+09
X(15)	.1703141E+06	.1148688E+10	-.4375439E+07	.6167920E+10	-.9182376E+09	-.1350897E+11	-.1223348E+12	.8489830E+10
X(43)	.5334876E+05	.5555451E+11	.4131902E+08	-.9182376E+09	.4747346E+11	.8992332E+11	.7246903E+13	.1389644E+12
X(21)	-.4888473E+07	-.1507461E+12	.3430907E+08	.1350897E+11	.8992332E+11	.1812875E+14	.1027581E+14	.7380018E+12
X(47)	.1113759E+08	.1378488E+14	.9947465E+10	-.1223348E+12	.7246903E+13	.1027581E+14	.1393380E+16	.3714722E+14
X(31)	.2979633E+07	.1607106E+13	.8158288E+09	.8489830E+10	.1389644E+12	.7380018E+12	.3714722E+14	.4836697E+13
X(42)	.9564913E+04	.2466889E+11	.1983101E+08	-.4837819E+09	.1731670E+11	.6066037E+11	.2706010E+13	.5338804E+11
X(46)	.1990630E+07	.5750829E+13	.4489457E+10	-.7201367E+11	.2707496E+13	.8225837E+13	.5190762E+15	.1335877E+14
X(36)	-.2478515E+08	.1910703E+14	.1531271E+11	-.6219487E+12	.9742041E+13	.9071681E+14	.1528866E+16	.3573678E+14
MACH	.8937985E+01	.1282246E+05	-.2195274E+03	.1217902E+06	-.6924339E+05	-.4314064E+07	-.9344784E+07	.5177181E+06

FRIDAY, JUL 2, 1976

	X(42)	X(46)	X(36)	MACH
X(7)	-1926802E+06	-3497489E+08	-4820306E+09	-1258247E+03
X(19)	-1666799E+09	2099391E+11	-1641696E+12	-6870245E+04
DC	-5901561E+08	8281278E+10	-7411658E+11	-3466487E+04
X(18)	-8245830E+08	-1141680E+11	-8293394E+11	-3415635E+04
X(6)	-1694865E+05	-4772072E+07	-7970977E+08	-2742338E+02
X(16)	-5331218E+05	-1057032E+08	-1550256E+09	-4192448E+02
X(26)	-2830665E+08	-6601164E+10	-1702339E+11	-1004833E+03
X(10)	-8594521E+08	-1256195E+11	-1869635E+11	-4201198E+03
X(8)	-2720115E+04	-3335584E+06	-3357611E+06	-3323823E+01
X(27)	-6392228E+08	-1597097E+11	-3317839E+11	-2786135E+02
X(11)	-8241867E+10	-1447093E+13	-1100168E+14	-4790499E+06
X(23)	-1891300E+11	-3321480E+13	-2075684E+14	-3128288E+06
X(13)	-1746955E+11	-3953890E+13	-1749992E+14	-2001088E+06
X(28)	-6508061E+07	-1466631E+10	-4933482E+10	-7125788E+02
X(25)	-8133066E+13	-1423565E+16	-1351111E+17	-5919309E+09
X(20)	-1928980E+08	-2708161E+10	-2275661E+11	-1112775E+04
X(14)	-9564913E+04	-1990630E+07	-2478515E+08	-8937885E+01
X(30)	-2466889E+11	-5750839E+13	-1910703E+14	-1262246E+05
DT	-1983101E+08	-4489457E+10	-1531271E+11	-2195274E+03
X(15)	-4837819E+05	-7201367E+11	-6219487E+12	-1217902E+06
X(43)	-1731670E+11	-2707496E+13	-9742041E+13	-6924339E+05
X(21)	-6066037E+11	-8225837E+13	-9071681E+14	-4314064E+07
X(47)	-2706010E+13	-5190762E+15	-1528866E+16	-9344784E+07
X(31)	-5338804E+11	-1335877E+14	-3573678E+14	-5177181E+06
X(42)	-7194998E+10	-1153694E+13	-4598041E+13	-3761396E+05
X(46)	-1153694E+13	-2209933E+15	-7438717E+15	-5678746E+07
X(36)	-4598041E+13	-7438717E+15	-4630851E+16	-4696204E+08
MACH	-3761396E+05	-5678746E+07	-4696204E+08	-5006711E+01

SUMS OF SQUARES AND CROSS PRODUCT MATRIX  
FOR TREATMENT.

FRIDAY, JUL 2, 1976

	X(7)	X(19)	DC	X(18)	X(6)	X(16)	X(26)	X(10)
X(7)	-4399930E+02	-2631543E+04	-1705825E+03	-6197610E+03	-6683178E+01	-1474655E+02	-4164359E+04	-1375818E+04
X(19)	-2631543E+04	-1573892E+06	-1020232E+05	-3706712E+05	-3997124E+03	-8819724E+03	-2490551E+06	-8228596E+05
DC	-1705825E+03	-1020232E+05	-6613376E+03	-2402774E+04	-2591026E+02	-5717143E+02	-1614496E+05	-5333961E+04
X(18)	-6197610E+03	-3706712E+05	-2402774E+04	-8729769E+04	-9413725E+02	-2077155E+03	-5865792E+05	-1937937E+05
X(6)	-6683178E+01	-3997124E+03	-2591026E+02	-9413725E+02	-1015127E+01	-2238895E+01	-6325363E+03	-2089769E+03
X(16)	-1474655E+02	-8819724E+03	-5717143E+02	-2077155E+03	-2238895E+01	-4942366E+01	-1395702E+04	-4611112E+03
X(26)	-4164359E+04	-2490551E+06	-1614496E+05	-5865792E+05	-6325363E+03	-1395702E+04	-3941401E+06	-1302158E+06
X(10)	-1375818E+04	-8228596E+05	-5333961E+04	-1937937E+05	-2089769E+03	-4611112E+03	-1302158E+06	-4302060E+05
X(8)	-8594537E-01	-5140284E+01	-3332048E+00	-1210601E+01	-1305449E-01	-2880495E-01	-8134388E+01	-2687434E+01
X(27)	-1013161E+05	-6059589E+06	-3927962E+05	-1427109E+06	-1538919E+04	-3395652E+04	-9589169E+06	-3168064E+06
X(11)	-4814217E+05	-2879323E+07	-1866442E+06	-6781163E+06	-7312451E+04	-1613505E+05	-4556466E+07	-1505362E+07
X(23)	-6880082E+06	-4114890E+08	-2667364E+07	-9691079E+07	-1045035E+06	-2305888E+06	-6511725E+08	-2151340E+08
X(13)	-2647731E+07	-1583575E+09	-1026509E+08	-3729515E+08	-4021714E+06	-8873980E+06	-2505972E+09	-8279216E+08
X(28)	-1060748E+04	-6344200E+05	-4112453E+04	-1494138E+05	-1611200E+03	-3555141E+03	-1003956E+06	-3316863E+05
X(25)	-8617886E+08	-5154249E+10	-3341100E+09	-1213890E+10	-1308995E+08	-2888320E+08	-8156487E+10	-2694735E+10
X(20)	-5020044E+02	-3002425E+04	-1946239E+03	-7071084E+03	-7625087E+01	-1682488E+02	-4751272E+04	-1569722E+04
X(14)	-2279506E+01	-1363344E+03	-8837501E+01	-3210844E+02	-3462406E+00	-7639858E+00	-2157462E+03	-7127810E+02
X(30)	-3290738E+07	-1968149E+09	-1275798E+08	-4635235E+08	-4998395E+06	-1102804E+07	-3114553E+09	-1028984E+09
DT	-3300777E+04	-1974153E+06	-1279690E+05	-4649376E+05	-5013644E+03	-1106269E+04	-3124055E+06	-1032123E+06
X(15)	-4318613E+05	-2582908E+07	-1674299E+06	-6083069E+06	-6559663E+04	-1447401E+05	-4087396E+07	-1350391E+07
X(43)	-4407905E+06	-2636312E+08	-1708917E+07	-6208843E+07	-6695291E+05	-1477327E+06	-4171907E+08	-1378312E+08
X(21)	-4839737E+06	-2894586E+08	-1876335E+07	-6817109E+07	-7351218E+05	-1622058E+06	-4580619E+08	-1513342E+08
X(47)	-1053419E+09	-6300365E+10	-4084038E+09	-1483814E+10	-1600068E+08	-3530575E+08	-9970191E+10	-3293945E+10
X(31)	-7811285E+07	-4671831E+09	-3028986E+08	-1100274E+09	-1186478E+07	-2617985E+07	-7393072E+09	-2442518E+09
X(42)	-2109098E+06	-1261425E+08	-8175842E+06	-2970813E+07	-3203569E+05	-7068731E+05	-1996178E+08	-6594961E+07
X(46)	-4750835E+08	-2841414E+10	-1841869E+09	-6691884E+09	-7216177E+07	-1582262E+08	-4496477E+10	-1485543E+10
X(36)	-1462717E+09	-8748325E+10	-5670861E+09	-2060339E+10	-2221762E+08	-4902356E+08	-1384404E+11	-4573784E+10
MACH	-2355607E+01	-1408859E+03	-9132540E+01	-3318038E+02	-3577998E+00	-7894915E+00	-2229489E+03	-7365771E+02

FRIDAY, JUL 2, 1976

	X(8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X(7)	.8594537E-01	-.1013161E+05	.4814217E+05	.6880082E+06	-.2647731E+07	-.1060748E+04	.8617886E-08	.5020044E+02
X(19)	.5140284E+01	-.6059589E+06	.2879323E+07	.4114890E+08	-.1583575E+09	-.6344200E+05	.5154249E+10	.3002425E+04
DC	.3322048E+00	-.3927962E+05	.1866442E+06	.2667364E+07	-.1026509E+08	-.4112453E+04	.3341100E+09	.1946239E+03
X(18)	.1210601E+01	-.1427109E+06	.6781163E+06	.9691079E+07	-.3729515E+08	-.1494138E+05	.1213890E+10	.7071084E+03
X(6)	.1305449E-01	-.1538919E+04	.7312451E+04	.1045035E+06	-.4021714E+06	-.1611200E+03	.1308995E+08	.7625087E+01
X(16)	.2880495E-01	-.3395652E+04	.1613505E+05	.2305888E+06	.8873980E+06	-.3555141E+03	.2888320E+08	.1682488E+02
X(26)	-.8134388E+01	.9589169E+06	.4556466E+07	.6511725E+08	.2505972E+09	.1003956E+06	-.8156487E+10	-.4751272E+04
X(10)	-.2687434E+01	.3168064E+06	.1505362E+07	.2151340E+08	.8279216E+08	.3316863E+05	.2694735E+10	-.1569722E+04
X(8)	.1678801E-03	-.1979043E+02	.9403779E+02	.1343910E+04	-.5171906E+04	-.2071996E+01	.1683362E+06	.9805828E-01
X(27)	-.1979043E+02	.2332982E+07	-.1108558E+08	.1584260E+09	.6096866E+09	.2442559E+06	.1984420E+11	-.1155953E+05
X(11)	.9403779E+02	-.1108558E+08	.5267513E+08	.7527895E+09	.2897036E+10	-.1160626E+07	.9429327E+11	.5492720E+05
X(23)	.1343910E+04	-.1584260E+09	.7527895E+09	.1075825E+11	-.4140204E+11	-.1658670E+08	.1347562E+13	.7849742E+06
X(13)	-.5171906E+04	.6096866E+09	.2897036E+10	.4140204E+11	.1593316E+12	.6383228E+08	.5185956E+13	.3020895E+07
X(28)	-.2071996E+01	.2442559E+06	-.1160626E+07	.1658670E+08	.6383228E+08	.2557283E+05	.2077625E+10	-.1210247E+04
X(25)	.1683362E+06	-.1984420E+11	.9429327E+11	.1347562E+13	.5185956E+13	-.2077625E+10	.1687935E+15	.9832467E+08
X(20)	.9805828E-01	-.1155953E+05	.5492720E+05	.7849742E+06	.3020895E+07	-.1210247E+04	.9832467E+08	.5727555E+02
X(14)	.4452639E-02	.5248963E+03	.2494139E+04	.3564418E+05	.1371731E+06	.5495500E+02	.4464735E+07	.2600773E+01
X(30)	-.6427913E+04	.7577502E+09	.3600586E+10	.5145661E+11	.1980256E+12	.7933408E+08	.6445376E+13	-.3754526E+07
DT	.6447523E+01	.7600620E+06	.3611571E+07	.5161359E+08	.1986298E+09	.7957611E+05	.6465040E+10	.3765980E+04
X(15)	.8435698E+02	-.9944365E+07	.4725244E+08	.6752928E+09	.2598797E+10	-.1041144E+07	.8458615E+11	.4927266E+05
X(43)	-.8610114E+03	.1014998E+09	.4822943E+09	.6892552E+10	.2652530E+11	.1062671E+08	.8633506E+12	.5029143E+06
X(21)	.9453627E+03	-.1114434E+09	.5295436E+09	.7567799E+10	.2912392E+11	-.1166778E+08	.9479310E+12	.5521836E+06
X(47)	-.2057680E+06	.2425682E+11	-.1152606E+12	.1647210E+13	.6339123E+13	.2539613E+10	-.2063270E+15	-.1201885E+09
X(31)	-.1525806E+05	.1798686E+10	.8546778E+10	.1221435E+12	.4700571E+12	.1883168E+09	-.1529951E+14	-.8912187E+07
X(42)	-.4119776E+03	.4856570E+08	.2307686E+09	.3297955E+10	.1269185E+11	.5084677E+07	.4130968E+12	.2406349E+06
X(46)	-.9279972E+05	.1093963E+11	.5198163E+11	.7428785E+12	.2858894E+13	.1145345E+10	.9305183E+14	.5420405E+08
X(36)	-.2857175E+06	.3368163E+11	.1600443E+12	.2287221E+13	.8802143E+13	.3526361E+10	-.2864938E+15	-.1668868E+09
MACH	.4601290E-02	-.5424200E+03	.2577406E+04	.3683416E+05	-.1417526E+06	-.5678967E+02	.4613790E+07	.2687600E+01

FRIDAY, JUL 2, 1976

	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X(7)	.2279506E+01	-.3290738E+07	.3300777E+04	.4318613E+05	-.4407905E+06	.4839737E+06	-.1052419E+09	-.7811285E+07
X(19)	.1363344E+03	-.1968149E+09	.1974153E+06	.2582908E+07	-.2636312E+08	.2894586E+08	-.6300365E+10	-.4671831E+09
DC	.8837501E+01	-.1275798E+08	.1279690E+05	.1674299E+06	-.1708917E+07	.1876335E+07	-.4084038E+09	.3028386E+08
X(18)	.3210844E+02	.4635235E+08	.4649376E+05	.6083069E+06	-.6208843E+07	.6817109E+07	-.1483814E+10	-.1100274E+09
X(6)	.3462406E+00	.4998395E+06	.5013644E+03	.6559863E+04	-.6695291E+05	.7351213E+05	-.1600068E+08	-.1186478E+07
X(16)	.7639858E+00	-.1102904E+07	.1106269E+04	.1447401E+05	-.1477327E+06	.1622058E+06	.3530576E+08	.7393072E+09
X(26)	-.2157482E+03	.3114553E+09	.3124055E+06	.4087395E+07	.4171807E+08	-.4580619E+08	.9970191E+10	.2442518E+09
X(10)	-.7127810E+02	.1028984E+09	.1032123E+06	.1350391E+07	.1378312E+08	-.1513342E+08	.3293945E+10	.2425682E+11
X(8)	.4452639E-02	.6427913E+04	.6447523E+01	.8435698E+02	-.8610114E+03	.9453627E+03	-.2057680E+06	-.1525806E+05
X(27)	-.5248963E+03	.7577502E+09	.7600620E+06	.9944365E+07	.1014998E+09	-.1114434E+09	.2425682E+11	.1798686E+10
X(11)	.2494139E+04	.3600586E+10	.3611571E+07	.4725244E+08	.4822943E+09	.5295436E+09	-.1152606E+12	-.8546778E+10
X(23)	.1343910E+04	-.1584260E+09	.7567799E+10	.1075825E+11	.4140204E+11	.1593316E+12	.6383228E+08	.5185956E+13
X(13)	-.5171906E+04	.6096866E+09	.2897036E+10	.4140204E+11	.1593316E+12	.6383228E+08	.5185956E+13	.3020895E+07
X(28)	-.2071996E+01	.2442559E+06	-.1160626E+07	.1658670E+08	.6383228E+08	.2557283E+05	.2077625E+10	-.1210247E+04
X(25)	.1683362E+06	-.1984420E+11	.9429327E+11	.1347562E+13	.5185956E+13	-.2077625E+10	.1687935E+15	.9832467E+08
X(20)	.9805828E-01	-.1155953E+05	.5492720E+05	.7849742E+06	.3020895E+07	-.1210247E+04	.9832467E+08	.5727555E+02
X(14)	.4452639E-02	.5248963E+03	.2494139E+04	.3564418E+05	.1371731E+06	.5495500E+02	.4464735E+07	.2600773E+01
X(30)	-.6427913E+04	.7577502E+09	.3600586E+10	.5145661E+11	.1980256E+12	.7933408E+08	.6445376E+13	-.3754526E+07
DT	.6447523E+01	.7600620E+06	.3611571E+07	.5161359E+08	.1986298E+09	.7957611E+05	.6465040E+10	.3765980E+04
X(15)	.8435698E+02	-.9944365E+07	.4725244E+08	.6752928E+09	.2598797E+10	-.1041144E+07	.8458615E+11	.4927266E+05
X(43)	-.8610114E+03	.1014998E+09	.4822943E+09	.6892552E+10	.2652530E+11	.1062671E+08	.8633506E+12	.5029143E+06
X(21)	.9453627E+03	-.1114434E+09	.5295436E+09	.7567799E+10	.2912392E+11	-.1166778E+08	.9479310E+12	.5521836E+06
X(47)	-.2057680E+06	.2425682E+11	-.1152606E+12	.1647210E+13	.6339123E+13	.2539613E+10	-.2063270E+15	-.1201885E+09
X(31)	-.1525806E+05	.1798686E+10	.8546778E+10	.1221435E+12	.4700571E+12	.1883168E+09	-.1529951E+14	-.8912187E+07
X(42)	-.4119776E+03	.4856570E+08	.2307686E+09	.3297955E+10	.1269185E+11	.5084677E+07	.4130968E+12	.2406349E+06
X(46)	-.9279972E+05	.1093963E+11	.5198163E+11	.7428785E+12	.2858894E+13	.1145345E+10	.9305183E+14	.5420405E+08
X(36)	-.2857175E+06	.3368163E+11	.1600443E+12	.2287221E+13	.8802143E+13	.3526361E+10	-.2864938E+15	-.1668868E+09
MACH	.4601290E-02	-.5424200E+03	.2577406E+04	.3683416E+05	-.1417526E+06	-.5678967E+02	.4613790E+07	.2687600E+01

FRIDAY, JUL 2, 1976

	X(42)	X(46)	X(36)	MACH
X( 7)	-.2109098E+06	-.4750835E+08	-.1462717E+09	.2355607E+01
X(19)	-.1261425E+08	-.2841414E+10	-.8748325E+10	.1408859E+03
DC	-.8175842E+06	-.1841869E+09	-.5670861E+09	.9132540E+01
X(18)	-.2970813E+07	-.6691884E+09	-.2060339E+10	.3318038E+02
X( 6)	-.3203569E+05	-.7216177E+07	-.2221762E+08	.3577998E+00
X(16)	-.7068731E+05	-.1592262E+08	-.4902356E+08	.7894915E+00
X(26)	-.1996178E+08	-.4496477E+10	-.1384404E+11	-.2229489E+03
X(10)	-.6594961E+07	-.1485543E+10	-.4573784E+10	-.7365771E+02
X( 8)	-.4119776E+03	-.9279972E+05	-.2857176E+06	.4601290E-02
X(27)	-.4856570E+08	-.1093963E+11	-.3368163E+11	-.5424200E+03
X(11)	-.2307686E+09	-.5198163E+11	-.1600443E+12	.2577406E+04
X(23)	-.3297955E+10	-.7428785E+12	-.2287221E+13	.3683416E+05
X(13)	-.1269185E+11	-.2858894E+13	-.8802143E+13	-.1417526E+06
X(28)	-.5084677E+07	-.1145345E+10	-.3526361E+10	-.5678967E+02
X(25)	-.4130968E+12	-.9305183E+14	-.2864938E+15	.4613790E+07
X(20)	-.2406349E+06	-.5420405E+08	-.1668868E+09	.2687600E+01
X(14)	-.1092677E+05	-.2461302E+07	-.7578012E+07	.1220388E+00
X(30)	-.1577408E+11	-.3553182E+13	-.1093976E+14	-.1761775E+06
DT	-.1582222E+08	-.3564022E+10	-.1097314E+11	-.1767150E+03
X(15)	-.2070119E+09	-.4663033E+11	-.1435684E+12	.2312072E+04
X(43)	-.2112921E+10	-.4759446E+12	-.1465368E+13	-.2359877E+05
X(21)	-.2319919E+10	-.5225718E+12	-.1608927E+13	.2591068E+05
X(47)	-.5049544E+12	-.1137431E+15	-.3501995E+15	-.5639728E+07
X(17)	-.3744326E+11	-.8434254E+13	-.2586791E+14	-.4181957E+06
X(42)	-.1010993E+10	-.2277304E+12	-.7011507E+12	-.1129156E+05
X(46)	-.2277304E+12	-.5129725E+14	-.1579372E+15	-.2543473E+07
X(36)	-.7011507E+12	-.1579372E+15	-.4862670E+15	-.7831003E+07
MACH	-.1129156E+05	-.2543473E+07	-.7831003E+07	.1261130E+00

FRIDAY, JUL 2, 1976

SUMS OF SQUARES AND CROSS PRODUCT MATRIX  
FOR ERROR.

	X( 7)	X(19)	DC	X(18)	X( 6)	X(16)	X(26)	X(10)
X( 7)	.4749712E+04	.1017190E+06	-.2721379E+05	.9299741E+04	.9781947E+03	.1688530E+04	.5647954E+04	-.5693571E+06
X(19)	.1017190E+06	.1034084E+09	.1989113E+08	.3476806E+08	.3090887E+05	.4068456E+05	.1680558E+06	-.3347739E+08
DC	-.2721379E+05	.1989113E+08	.6953040E+07	.8545286E+07	-.4184374E+04	-.8640992E+04	-.3081020E+05	.7251213E+06
X(18)	.9299741E+04	.3476806E+08	.8545286E+07	.10339493E+08	.7668933E+04	.4411060E+04	.5564045E+05	-.6388813E+07
X( 6)	.9781947E+03	.3090887E+05	-.4184374E+04	.7668933E+04	.2512644E+03	.3377567E+03	.1790055E+04	-.8750828E+05
X(16)	.1688530E+04	.4068456E+05	-.8640992E+04	.4411060E+04	.3377567E+03	.6148358E+03	.1998752E+04	-.2556491E+06
X(26)	.5647954E+04	.1680558E+06	-.3081020E+05	.5564045E+05	.1790055E+04	.1998752E+04	.2161882E+06	-.8867556E+06
X(10)	-.5693571E+06	-.3347739E+08	.7251213E+06	-.6388813E+07	-.8750828E+05	-.2556491E+06	-.8867556E+06	.6261708E+09
X( 8)	.2590891E+02	.1556331E+04	-.3266539E+02	.2842768E+03	.3835197E+01	.1215674E+02	.3623252E+02	-.2525837E+05
X(27)	.2496488E+05	.5024608E+06	-.1805491E+06	.5912258E+05	.6098927E+04	.9071897E+04	.6829423E+06	-.4588193E+07
X(11)	-.3888958E+07	.2826743E+10	.1030141E+10	.1246370E+10	-.6103168E+06	-.1237754E+07	-.6364727E+07	-.6405095E+08
X(23)	.3537192E+08	.1467644E+11	.2712884E+10	.4925241E+10	.8579765E+07	.1318958E+08	.3240699E+08	.7052198E+10
X(13)	-.6739001E+06	-.5103202E+08	.3671897E+07	-.5704899E+07	-.1177221E+06	-.1819265E+06	.9537315E+08	-.1627194E+09
X(28)	-.1612346E+02	.6397790E+04	.2031626E+04	.1305222E+04	.6239728E+01	.3476734E+02	.2733531E+05	-.2356246E+06
X(25)	-.1169282E+11	.2321775E+13	.1264664E+13	.1335540E+13	-.1902723E+10	-.4509800E+10	-.1725601E+11	.7511333E+13
X(20)	-.7287811E+04	.6718867E+07	.2236860E+07	.2800263E+07	-.1101281E+04	-.2134754E+04	.7942732E+04	-.1633340E+07
X(14)	-.3587545E+03	.1252797E+05	-.1275074E+04	.2932471E+04	.8685309E+02	.1292310E+03	.6311918E+03	-.5898374E+05
X(30)	.8503612E+07	.2029866E+09	-.4637487E+08	.6371763E+08	.2468613E+07	.3019824E+07	.2279721E+09	-.1233715E+10
DT	-.5436630E+03	-.1710460E+05	.4089113E+04	.9856285E+03	-.7850567E+02	-.1583890E+03	.7896419E+05	-.1148277E+06
X(15)	.2593199E+07	.2783353E+08	-.3524717E+08	-.1676366E+08	.7185738E+06	.6849105E+06	.2909190E+07	.9104736E+09
X(43)	.4717709E+06	.4293791E+09	.1140918E+09	.1805679E+09	.1779110E+06	.1999691E+06	.2334446E+08	.3148750E+09
X(21)	-.6510045E+08	.1757569E+11	.8559585E+10	.9366851E+10	-.1067961E+08	-.2398739E+08	.9104666E+08	.3362159E+11
X(47)	.1250363E+09	.5348544E+11	.1489168E+11	.2392850E+11	.4252987E+08	.4751344E+08	.6216882E+10	.5278641E+11
X(31)	.4005044E+08	.6276936E+09	.2873324E+09	.2929204E+08	.8997339E+07	.1451722E+08	.6838171E+09	.6575873E+10
X(42)	.1822966E+05	.1792941E+09	.5983430E+08	.8542911E+08	.4898434E+05	.1737513E+05	.8344867E+07	.9254017E+08
X(46)	.1253346E+08	.2383532E+11	.8465464E+10	.1208599E+11	.1198825E+08	.5352296E+07	.2104688E+10	.1404750E+11
X(36)	-.3357589E+09	.1729179E+12	.7468366E+11	.8499428E+11	-.5749215E+08	-.1060020E+09	.3179354E+10	.2327013E+11
MACH	.1234691E+03	-.7011131E+04	-.3475619E+04	-.3448816E+04	.2706558E+02	.4113499E+02	.1224656E+03	.4937775E+03

FRIDAY, JUL 2, 1976

	X( 8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X( 7)	.2590981E+02	.2496488E+05	-.3888958E+07	.3537192E+08	-.6739001E+06	.1612346E+02	-.1169282E+11	-.7287811E+04
X(19)	.1556321E+04	.5024608E+06	.2826743E+10	.1467644E+11	-.5103202E+08	.6397790E+04	.2321775E+13	.6718867E+07
DC	.3266539E+02	-.1805491E+06	.1030141E+10	.2712884E+10	.3671897E+07	.2031626E+04	.1264664E+13	.2236860E+07
X(18)	.2842768E+03	.5912258E+05	.1246370E+10	.4925241E+10	-.5704999E+07	.3209222E+04	.1335540E+13	.2800263E+07
X( 6)	.3835197E+01	.6099276E+04	-.6103168E+06	.8579755E+07	-.1177221E+06	.6239728E+01	-.1902723E+10	-.1101281E+04
X(16)	.1215674E+02	.9071897E+04	-.1237754E+07	.1318958E+08	-.1819265E+06	.3476734E+02	-.4509800E+10	-.2134754E+04
X(26)	.3623252E+02	.6829423E+06	-.6364727E+07	.3240699E+08	.9537315E+08	.2733531E+05	-.1725601E+11	-.7942732E+04
X(10)	-.2525837E+05	-.4588193E+07	-.6405095E+08	.7052198E+10	-.1627194E+09	-.2356246E+06	.7511333E+13	-.1633340E+07
X( 8)	.1191369E+01	.2024818E+03	.3396564E+04	.3275762E+06	.6663191E+04	.1065942E+02	-.3028548E+09	.7700056E+02
X(27)	.2024818E+03	.2665092E+07	-.3494772E+08	.1116647E+09	.2208755E+09	.7499503E+05	-.8511109E+11	-.4826862E+05
X(11)	.3396564E+04	-.3494772E+08	.1847026E+12	.4845872E+12	.1120207E+10	.7149098E+05	.2271706E+15	.3314195E+09
X(23)	.3275762E+06	.1116647E+09	.4845872E+12	.2666334E+13	-.1152541E+11	-.1324775E+07	.3749819E+15	.9261663E+09
X(13)	.6663191E+04	.2208755E+09	.1120207E+10	-.1152541E+11	.1570980E+12	.2530836E+08	.2467048E+13	.8787407E+06
X(28)	.1065942E+02	.7499503E+05	.7149098E+05	.1324775E+07	.2530836E+08	.7044514E+04	-.2047893E+10	.1102769E+04
X(25)	-.3028548E+09	-.8511109E+11	.2271706E+15	.3749819E+15	.2467048E+13	-.2047893E+10	.5229347E+18	.3557650E+12
X(20)	.7700056E+02	-.4826862E+05	.3314195E+09	.9261663E+09	.8787407E+06	.1102769E+04	.3557650E+12	.7341633E+06
X(14)	.2750800E+01	.2288810E+04	-.1877659E+06	.3309760E+07	-.2539990E+05	.1519548E+02	-.9561155E+09	-.2532212E+03
X(30)	.5278155E+05	.6775621E+09	-.6972805E+10	.5664113E+11	.1929493E+12	.3320928E+08	-.1992055E+14	-.1255201E+08
DT	.3771287E+01	.1949798E+06	.1830384E+06	.9881878E+07	.7828711E+08	.2011341E+05	-.7299451E+08	.1267255E+04
X(15)	-.4062227E+05	.9395838E+07	-.4929455E+10	.8220464E+10	-.1635459E+10	-.5772263E+06	.2099881E+13	-.1271722E+08
X(43)	.1239469E+05	.6605717E+08	.1506566E+11	.5252051E+11	.8902123E+10	.3356456E+07	.1117813E+14	.3836819E+08
X(21)	-.1360290E+07	-.4457351E+09	.1269583E+13	.2193838E+13	.1022008E+11	-.7873697E+07	.2822552E+16	.2446770E+10
X(47)	.1972633E+07	.2065955E+11	.2572142E+13	.9021753E+13	.2176455E+13	.7985723E+09	.1863746E+16	.5027267E+10
X(31)	.2960823E+06	.2518035E+10	-.4574070E+11	.2180729E+12	.4495522E+12	.8595334E+08	-.1185214E+15	-.7871792E+08
X(42)	.3132093E+04	.1535658E+08	.8472636E+10	.2321095E+11	.4777695E+10	.1423384E+07	.8546163E+13	.1953044E+08
X(46)	.4263581E+06	.5031334E+10	.1499074E+13	.4064358E+13	.1094996E+13	.3212861E+09	.1516617E+16	.2762365E+10
X(36)	.6214788E+06	-.5032342E+09	.1116173E+14	.2304406E+14	.8697774E+13	.1407121E+10	.1379760E+17	.2392350E+11
MACH	-.3783952E+01	.5702813E+03	-.4816273E+06	-.3498630E+06	-.5835619E+05	-.1446821E+02	-.5965447E+09	-.1115462E+04

FRIDAY, JUL 2, 1976

	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X( 7)	.3587545E+03	.8503612E+07	-.5436630E+03	.2593199E+07	.4717709E+06	-.6510045E+08	.1250363E+09	.4005044E+08
X(19)	.1252797E+05	.2029868E+09	-.1710460E+05	-.2783353E+08	.4293791E+09	.1757569E+11	.5348544E+11	.6276936E+09
DC	.1275074E+04	-.4637447E+08	.4089111E+04	-.3524717E+08	.1140918E+09	.8559585E+10	.1489168E+11	-.2873324E+09
X(18)	.2932471E+04	.6371763E+08	.9856285E+03	-.1676338E+08	.1805679E+09	.9356851E+10	.2392850E+11	.2929204E+08
X( 6)	.8685309E+02	.2468613E+07	-.7850567E+02	.7185738E+08	.1779110E+06	-.1067961E+08	.4252987E+08	.8997339E+07
X(16)	.1292310E+03	.3019242E+07	-.1583890E+03	.6849105E+06	.1999691E+06	-.2398739E+08	.4751344E+08	.1451722E+08
X(26)	.6311918E+03	.2279721E+09	.7896419E+05	.2909190E+07	.2334446E+08	-.9104666E+08	.6216882E+10	.6838171E+09
X(10)	-.5889374E+05	-.1233715E+10	-.1148277E+06	.9104736E+09	-.3148750E+09	.3362159E+11	-.5278641E+11	-.6575873E+10
X( 8)	.2750800E+01	.5278155E+05	.3771287E+01	-.4062227E+05	.1239469E+05	-.1360290E+07	.1972633E+07	.2960823E+06
X(27)	.2288810E+04	.6775621E+09	.1949798E+06	.9395838E+07	.6605717E+08	-.4457351E+09	.2065955E+11	.2518035E+10
X(11)	-.1877659E+06	-.6972805E+10	.1830384E+06	-.4929455E+10	.1506566E+11	.1269583E+13	.2572142E+13	-.4574070E+11
X(23)	.3309760E+07	.5664113E+11	-.9881878E+07	.8220464E+10	.5252051E+11	.2193838E+13	.9021753E+13	.2180729E+12
X(13)	-.2539990E+05	.1929493E+12	.7828711E+08	-.1635459E+10	.8902123E+10	.1022008E+11	.2176455E+13	.4495522E+12
X(28)	.1519548E+02	.3320928E+08	.2011341E+05	-.5772263E+06	.3356456E+07	-.7673697E+07	.7985723E+09	.8595334E+08
X(25)	-.9561155E+09	-.1992055E+14	.1269583E+13	.2099881E+13	.1117813E+14	.2822552E+16	.1863746E+16	-.1185214E+15
X(20)	-.2532212E+03	-.1255201E+08	.1267255E+04	-.1271722E+08	.3836819E+08	.2446770E+10	.5027267E+10	-.7871792E+08
X(14)	.3219542E+02	.8775140E+06	-.1861254E+02	.1680767E+06	.7618513E+05	-.4913547E+07	.1659512E+08	.3384319E+07
X(30)	.18775140E+06	.3659539E+12	.9703430E+08	.4378608E+10	.2258749E+11	.1145494E+12	.5906291E+13	.1022895E+13
DT	.1860767E+06	.4378608E+10	.6235743E+05	-.1135665E+07	.8251424E+07	.1998083E+07	.2044837E+10	.2298351E+09
X(15)	.1680767E+06	.9703430E+08	-.1135665E+07	.6125532E+10	-.4855935E+09	-.1398400E+11	-.1893975E+11	.1615675E+11
X(43)	.7618513E+05	.2258749E+11	.8251424E+07	-.4855935E+09	.4305757E+11	.9477183E+11	.6191575E+13	.6071001E+11
X(21)	-.4913547E+07	-.1145494E+12	.1998083E+07	-.1398400E+11	.9477183E+11	.1812443E+14	.1143453E+14	-.6520810E+12
X(47)	.1659512E+08	.5906291E+13	.2044837E+10	-.1893975E+11	.6191575E+13	.1143453E+14	.1141174E+16	.1844567E+14
X(31)	.3384319E+07	.1022895E+13	.2298351E+09	.1615675E+11	.6071001E+11	-.6520810E+12	.1844567E+14	.3449483E+13
X(42)	.2049168E+05	.8894796E+10	.4008798E+07	-.2767700E+09	.1520378E+11	.6298029E+11	.2201056E+13	.1594478E+11
X(46)	.4451932E+07	.2197656E+13	.9254347E+09	-.2538335E+11	.2231552E+13	.8748408E+13	.4053330E+15	.4924512E+13
X(36)	-.1720714E+08	.8167273E+13	.4339578E+10	-.4783804E+12	.8276670E+13	.9232574E+14	.1178666E+16	.9768867E+13
MACH	.8815947E+01	.1887999E+06	-.4281239E+02	.1194781E+06	-.4564462E+05	-.4339974E+07	-.3705056E+07	.9359138E+06

FRIDAY, JUL 2, 1976

	X(42)	X(46)	X(36)	MACH
X(7)	.1822966E+05	.1253346E+08	-.3357589E+09	.1234691E+03
X(19)	.1792941E+09	.2383522E+11	.1729179E+12	-.7011131E+04
DC	.5983430E+08	.8465464E+10	.7468366E+11	-.3475619E+04
X(18)	.8542911E+08	.1208599E+11	.8499428E+11	-.3448816E+04
X(6)	.4898434E+05	.1198825E+08	-.5749215E+08	.2706558E+02
X(16)	.1737513E+05	.5352296E+07	-.1060020E+09	.4113499E+02
X(26)	.8344867E+07	.2104688E+10	.3179354E+10	.1224656E+03
X(10)	-.9254017E+08	-.1404750E+11	-.2327013E+11	.4937775E+03
X(8)	.3132093E+04	.4263581E+06	.6214788E+06	-.3783952E-01
X(27)	.1535658E+08	.5031334E+10	-.5032342E+09	.5702813E+03
X(11)	.8472636E+10	.1499074E+13	.1116173E+14	-.4816273E+06
X(23)	.2321095E+11	.4064358E+13	.2304406E+14	-.3496630E+06
X(13)	.4777699E+10	.1094996E+13	.8697774E+13	-.5835619E+05
X(28)	.1423384E+07	.3212861E+09	.1407121E+10	-.1446821E+02
X(25)	.8546163E+13	.1516617E+16	.1379760E+17	-.5965447E+09
X(20)	.1953044E+08	.2762365E+10	.2392350E+11	-.1115462E+04
X(14)	.2049168E+05	.4451932E+07	.1720714E+08	.8815947E+01
X(30)	.8894796E+10	.2197656E+13	.8167273E+13	.1887999E+06
DT	.4008798E+07	.9254347E+09	.4339578E+10	-.4281239E+02
X(15)	-.2767700E+09	-.2538335E+11	-.4783804E+12	.1194781E+06
X(43)	.1520378E+11	.2231552E+13	.8276673E+13	-.4564462E+05
X(21)	.6288029E+11	.8748408E+13	.9232574E+14	-.4339974E+07
X(47)	.2201056E+13	.4053330E+15	.1178666E+16	-.3705056E+07
X(31)	.1594479E+11	.4924512E+13	.9768867E+13	.9359138E+06
X(42)	.5184006E+10	.9259335E+12	.3896890E+13	-.2632240E+05
X(46)	.9259335E+12	.1696960E+15	.5859345E+15	-.3135273E+07
X(36)	.3896890E+13	.5859345E+15	.4144584E+16	-.3913104E+08
MACH	-.2632240E+05	-.3135273E+07	-.3913104E+08	.4880598E+01

FRIDAY, JUL 2, 1976

INVERSE OF THE COVARIATES  
CROSS PRODUCT MATRIX  
FOR TOTAL.

	X(7)	X(19)	DC	X(18)	X(6)	X(16)	X(26)	X(10)
X(7)	.1805690E+00	-.1279419E-05	.5925235E-03	.2750268E-04	-.1942312E+00	-.4842312E+00	-.1440138E-04	.5546244E-04
X(19)	-.1279419E-05	.2595973E-06	.9854195E-07	-.5194270E-06	.4290104E-04	-.1736215E-06	-.4571174E-07	.4025170E-08
DC	.5925235E-03	.9854195E-07	.1012270E-03	-.3284381E-05	.9627741E-04	-.1688369E-02	-.3208796E-05	.7436685E-06
X(18)	.2750268E-04	-.5194270E-06	-.3284381E-05	.2605884E-05	-.2644107E-03	-.8310428E-05	.1505982E-05	-.1002404E-07
X(6)	-.1942312E+00	.4290104E-04	.9627741E-04	-.2644107E-03	.1803979E+01	.6585945E+00	-.1451508E-03	.4658693E-04
X(16)	-.4842312E+00	-.1736215E-06	-.1688369E-02	.8310428E-05	.6585945E+00	.1328363E+01	-.1433170E-03	-.1398136E-03
X(26)	-.1440138E-04	-.4571174E-07	-.3208796E-05	.1505982E-05	-.1451508E-03	-.1433170E-03	.2490385E-03	-.2602809E-07
X(10)	.5546244E-04	.4025170E-08	.7436685E-06	-.1002404E-07	.4658693E-04	-.1398136E-03	-.2602809E-07	.3984255E-07
X(8)	.9284808E+00	.1292375E-03	.1888038E-01	-.5260747E-03	.3740625E+01	-.2129613E+01	-.1443328E-02	.8960383E-03
X(27)	.1413863E-04	-.2695961E-07	.7849810E-06	.3357275E-06	.3273489E-05	.1509588E-04	.5350643E-04	.6715670E-08
X(11)	.9519618E-07	.3654478E-08	-.3307169E-07	.8200140E-09	.3735258E-06	.4099592E-07	.6169556E-08	.2426763E-09
X(23)	-.2432146E-07	.8097383E-09	.5003529E-08	-.4026358E-09	.6695661E-07	-.2291904E-07	-.1509494E-08	-.1510686E-10
X(13)	-.8345605E-07	.8068999E-10	.4102250E-09	-.6016236E-09	.5416500E-06	.4999505E-08	.1174147E-06	-.1022385E-11
X(28)	-.2083866E-03	.1746873E-06	.8383262E-05	-.1945898E-05	.5605108E-02	.1755696E-02	.7778316E-04	.4218987E-06
X(25)	-.1362072E-10	-.7044569E-12	.1134631E-10	-.2238820E-12	.2312311E-09	-.7497598E-11	.1349461E-11	-.1528189E-12
X(20)	-.1649435E-02	.1316328E-05	-.2543258E-03	.4884622E-05	.5086029E-03	.4550925E-02	.2862484E-05	-.2023300E-05
X(14)	.5678594E+00	.6307761E-04	.1700244E-03	.3643210E-03	-.5389496E+01	-.2001114E+01	.1107184E-02	.1380910E-03
X(30)	.1558744E-06	.3328702E-10	.1374935E-08	-.2989680E-09	.8881141E-06	.5131746E-07	-.2012776E-06	-.2573941E-11
DT	.7822594E-04	-.9088263E-07	-.2199468E-05	.6153305E-06	-.1809987E-02	.4940535E-03	-.1668583E-03	-.1284601E-06
X(15)	-.1721681E-04	-.3432308E-09	-.8161982E-07	.5464424E-08	-.3636145E-04	.4108211E-04	.5593914E-08	-.9322185E-08
X(43)	-.1776838E-06	.3730946E-08	-.1122072E-07	.5312621E-08	-.9968153E-07	.5276380E-06	.4715036E-07	.7964528E-10
X(21)	-.7114305E-07	.1016373E-09	.1191559E-07	.8957122E-10	.9261640E-07	.1846019E-06	.6211459E-11	-.7768946E-10
X(47)	-.7261903E-09	.1642856E-10	-.7742801E-10	-.3209327E-11	.1460189E-09	.3280999E-08	.5916018E-09	.5343479E-12
X(31)	-.4269646E-07	.5437439E-11	-.4033886E-09	.1182452E-09	.2004168E-06	-.1469162E-07	.4272260E-07	.4480989E-12
X(42)	-.6136074E-06	.1119125E-07	-.2998046E-07	.2404051E-07	.8842105E-06	.1421895E-05	.4950622E-07	.2090179E-09
X(46)	-.1193123E-08	-.4147775E-10	.2435943E-09	.8352884E-11	.2354807E-08	-.6036781E-08	-.1573735E-08	.1220262E-11
X(36)	.1732726E-09	-.1439430E-11	-.1224284E-10	.1063728E-10	-.5927904E-09	-.3139213E-09	.9924644E-10	.2632877E-13

FRIDAY, JUL 2, 1976

	X( 8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X( 7)	.9284808E+00	.1413863E-04	.9519618E-07	-.2432146E-07	-.8345605E-07	-.2083866E-03	-.1362072E-10	-.1649435E-02
X(19)	.1252375E-03	-.2695951E-07	.1654478E-08	-.8097383E-09	.8068999E-10	.1746873E-06	-.7044569E-12	-.1316328E-05
DC	.1888038E-01	.7849810E-06	-.3307169E-07	.5003529E-09	.4102250E-09	.8383262E-05	.1134631E-10	-.2543258E-03
X(18)	-.5260747E-03	-.3357275E-06	.8200140E-09	-.4026358E-09	-.6016236E-09	-.1945898E-05	-.2238820E-12	.4884622E-05
X( 6)	.3740625E+01	-.3273489E-05	-.3735258E-06	.6695661E-07	.5416500E-06	.5605108E-02	.2312311E-09	.5086029E-03
X(16)	-.2129613E+01	.1509588E-04	.4099592E-07	-.2291904E-07	.4999505E-08	.1755696E-02	.7497598E-11	.4550925E-02
X(26)	-.1443328E-02	.5350643E-04	.6169556E-08	-.1509494E-08	.1174147E-06	.7778316E-04	.1349461E-11	.2862484E-05
X(10)	.8960383E-03	.6715670E-08	.2426763E-09	-.1510686E-10	-.1022385E-11	.4218987E-06	-.1528189E-12	.2023300E-05
X( 8)	.2856493E+02	.4087678E-03	-.1026563E-05	.2567367E-06	-.2502341E-07	.1393630E-01	.5723193E-09	.4972420E-01
X(27)	.4087678E-03	.1435453E-04	.1610525E-08	.6062864E-09	-.1764175E-07	.2665892E-04	-.6709255E-12	.7752917E-06
X(11)	-.1026563E-05	.1610525E-08	.2072483E-09	-.2674574E-10	-.3779356E-12	.2513857E-08	-.7121687E-13	.5189294E-08
X(23)	.2567367E-06	.6062864E-09	.2674574E-10	.6453521E-11	.9882093E-13	.1438484E-08	.5439447E-14	.2604800E-08
X(13)	-.2502341E-07	-.1764175E-07	.3779356E-12	.9682093E-13	.1260855E-09	.3832140E-08	.3305898E-15	.1113300E-08
X(28)	-.1393630E-01	.2665892E-04	-.2513857E-08	.1438484E-08	.3832140E-08	.2614244E-02	-.9951003E-12	.1304390E-04
X(25)	.5723193E-09	-.6709255E-12	-.7121687E-13	.5439447E-14	.3305898E-15	.9951003E-12	.4424345E-16	.1960084E-11
X(20)	-.4972420E-01	.7752917E-06	.5189294E-08	-.2604800E-08	.1113300E-08	-.1304390E-04	-.1960084E-11	.6823232E-03
X(14)	-.1151439E+02	-.1804652E-03	.9083692E-06	-.1129964E-06	.4474167E-07	.1714163E-01	.6367017E-09	.1953209E-02
X(30)	-.1625134E-06	.4241299E-07	.7078291E-12	.3798337E-13	.1352909E-09	.1567088E-08	-.1037246E-14	.2932178E-08
DT	.4753320E-02	.3016900E-04	.6227083E-09	-.3597066E-09	-.1114777E-06	.8465884E-03	.2162253E-12	.3226307E-05
X(15)	-.2238427E-03	.5553514E-09	.2181802E-10	.3098412E-11	-.1286904E-11	.3393345E-06	.1418820E-13	.1844912E-06
X(43)	.1577757E-05	.2160898E-07	-.5211352E-10	.1493763E-10	-.1422788E-10	.5151298E-07	.1344959E-13	.1055830E-07
X(21)	-.2204124E-05	.5415094E-10	.1065452E-10	-.8346621E-12	.2380517E-14	.2172726E-08	.6630211E-14	.7022717E-07
X(47)	-.6853825E-08	.2362376E-09	.4275154E-12	-.1004151E-12	.2306488E-14	.1722405E-10	.7964754E-16	.3451874E-10
X(31)	.8654252E-07	-.1125484E-07	.2339062E-12	-.5345525E-13	.2055479E-10	.3582350E-08	.3369256E-15	.7364643E-09
X(42)	-.2716825E-05	.3260007E-07	.2228480E-09	.3613872E-10	.7454160E-10	.3302090E-07	.3081990E-13	.2560216E-07
X(46)	.2036910E-07	.5643495E-09	-.1560272E-11	.2549386E-12	.6085509E-14	.1835654E-09	-.1482772E-15	-.2507077E-10
X(36)	.1150451E-09	-.2331979E-10	.7408234E-14	-.1543652E-14	-.6791791E-13	-.3872952E-11	-.4772593E-17	-.5945417E-11

FRIDAY, JUL 2, 1976

	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X( 7)	.5678594E+00	.1558744E-06	.7822594E-04	-.1721681E-04	.1778838E-06	-.7114305E-07	-.7261903E-09	-.4269646E-07
X(19)	-.6307761E-04	.3328702E-10	-.9088263E-07	-.3423208E-09	.3730946E-08	.1016373E-09	.1642856E-10	-.5437438E-11
DC	.1700244E-03	.1374935E-08	-.2199488E-05	.8161982E-07	.1122072E-07	-.1191559E-07	.7742801E-10	-.4033986E-09
X(18)	.3643210E-03	-.2989680E-09	.6153305E-06	.5464424E-08	.5312621E-08	.8957122E-10	-.3209327E-11	.1182452E-09
X( 6)	-.5338494E+01	.8881141E-06	-.1809987E-02	.3635145E-04	.9969163E-07	.9261640E-07	.1460189E-09	.2004168E-06
X(16)	-.2001114E+01	.5131746E-07	.4940535E-03	.4108211E-04	.5276380E-06	.1846019E-06	.3290999E-08	.1469162E-07
X(26)	-.1107184E-02	.2013775E-06	.1668583E-03	.5593914E-08	.4715036E-07	.6211459E-11	.5916018E-09	.4272260E-07
X(10)	-.1380910E-03	.2573941E-11	-.1284601E-06	.9322185E-08	.7964528E-10	-.7768846E-10	-.5343479E-12	.4480989E-12
X( 8)	-.1151439E+02	.1625134E-06	.4753320E-02	-.2238427E-03	.1577757E-05	.2204124E-05	-.6853825E-08	.8654252E-07
X(27)	-.1804652E-03	.4241299E-07	.3016900E-04	.5553514E-09	.2160898E-07	.5415094E-10	-.2362376E-09	-.1125484E-07
X(11)	.9083692E-06	.7078291E-12	.6227083E-09	.2181802E-10	-.6211352E-10	.1065452E-10	.4275154E-12	.2339062E-12
X(23)	-.1129964E-06	.3798337E-13	-.3597066E-09	.3098412E-11	.1493763E-10	-.8346621E-12	-.1004151E-12	-.5345525E-13
X(13)	-.4474167E-07	-.1352909E-09	-.1114777E-06	-.1286904E-11	.1422788E-10	.2380517E-14	.2306488E-14	.2055479E-10
X(28)	-.1714163E-01	.1567088E-08	.8465884E-03	.3393345E-06	.5151298E-07	.2172726E-08	.1722405E-10	.3582350E-08
X(25)	-.6367017E-09	.1037246E-14	.2162253E-12	-.1418820E-13	.1344959E-13	.6630211E-14	.7964754E-16	.3369256E-15
X(20)	-.1953209E-02	.2932178E-08	.3226307E-05	.1844912E-06	.1055830E-07	.2702271E-07	.3451874E-10	.7364643E-09
X(14)	-.1647749E+02	.2243974E-06	.5032009E-02	.1060396E-03	.3164461E-06	.2559392E-06	.5877892E-09	.7405345E-07
X(30)	.2243974E-06	.2238888E-09	.1235738E-06	.9510432E-11	.6939103E-11	.2058821E-14	.6790535E-13	-.4773507E-10
DT	.5032009E-02	.1235738E-06	.4017511E-03	.1039312E-06	.2348072E-07	.6355352E-09	.1491133E-10	.1776675E-07
X(15)	.1060396E-03	.9510432E-11	.1039312E-06	.4087075E-08	-.2042086E-10	.1556811E-10	.5601059E-13	.2249716E-11
X(43)	.3164461E-06	.6939103E-11	.2348072E-07	-.2042086E-10	.1232599E-08	.1705946E-11	.6780015E-11	-.2582517E-11
X(21)	-.2559392E-06	.2058821E-14	.6355352E-09	.1556811E-10	.1705946E-11	.2268298E-11	.1073850E-13	-.1116615E-13
X(47)	-.5877892E-09	.7405345E-07	.1491133E-10	.5601059E-13	-.6780015E-11	.1073850E-13	.4791219E-13	.3228244E-13
X(31)	-.7405345E-07	-.4773507E-10	.1776675E-07	-.2249716E-11	.2582517E-11	-.1116615E-13	.3228244E-13	.1279718E-10
X(42)	.6700193E-06	.8597926E-11	.2215442E-07	.8248073E-10	.3434503E-08	.3466645E-11	.1789526E-10	-.4103278E-11
X(46)	-.6682498E-08	.9851525E-13	-.1985992E-10	-.2273242E-12	.1805829E-10	.3220057E-13	.1244939E-12	.5377692E-13
X(36)	.1907201E-09	-.2773530E-13	-.1704882E-11	-.1960985E-13	.1888521E-12	.2866227E-15	.2718605E-15	.1275584E-13

FRIDAY, JUL 2, 1976

	X(42)	X(46)	X(36)
X(7)	-.6136074E-06	.1193123E-08	.1732726E-09
X(19)	.1119125E-07	-.4147775E-10	-.1439430E-11
DC	-.2998046E-07	.2435943E-09	-.1224284E-10
X(18)	-.2404051E-07	.8352884E-11	.1063728E-10
X(6)	.8842105E-06	.2354807E-08	-.5927904E-09
X(16)	.1421895E-05	-.6016781E-08	-.3139213E-09
X(26)	.4950622E-07	-.1573735E-08	.9924644E-10
X(10)	-.2090179E-09	.1220262E-11	.2632877E-13
X(8)	-.2716825E-05	.2036910E-07	.1150451E-09
X(27)	-.3260007E-07	.5643495E-09	.2331979E-10
X(11)	.2228480E-09	-.1560272E-11	.7408234E-14
X(23)	-.3613872E-10	.2549396E-12	-.1543652E-14
X(13)	.7454160E-10	.6085509E-14	-.6791791E-13
X(28)	.3302090E-07	.1835654E-09	-.3872952E-11
X(25)	.3081990E-13	-.1482772E-15	-.4772593E-17
X(20)	.2560216E-07	-.2507077E-10	.5945417E-11
X(14)	.6700193E-06	-.6842488E-08	.1907301E-09
X(30)	.8597926E-11	.9851525E-13	-.2773530E-13
DT	-.2215442E-07	.1985992E-10	-.1704882E-11
X(15)	.8248073E-10	-.2273242E-12	-.1960985E-13
X(43)	-.3434503E-08	.1805829E-10	.1885821E-12
X(21)	-.3466645E-11	.2320057E-13	.2866227E-15
X(47)	.1789526E-10	-.1244939E-12	.2718605E-15
X(31)	-.4103278E-11	-.5377692E-13	.1275584E-13
X(42)	.1102816E-07	-.5377054E-10	-.1185524E-11
X(46)	-.5377054E-10	.3655458E-12	-.6275740E-15
X(36)	-.1185524E-11	-.6275740E-15	.1172471E-14

FRIDAY, JUL 2, 1976

INVERSE OF THE COVARIATES  
CROSS PRODUCT MATRIX  
FOR TREATMENT.

	X(7)	X(19)	DC	X(18)	X(6)	X(16)	X(26)	X(10)
X(7)	.4959632E+12	.9370779E+10	.6751082E+10	.4306199E+11	-.3702278E+12	-.6963063E+12	-.2264707E+11	-.5631567E+09
X(19)	-.3233487E+09	-.8661509E+07	-.1566525E+08	-.4408843E+08	-.5107531E+09	.1141160E+10	.2198030E+08	.4033542E+06
DC	.6810364E+10	.1210469E+09	.1166030E+09	.5600272E+09	-.5681295E+10	-.7824260E+10	-.2540004E+09	-.7816538E+07
X(18)	.1254264E+11	.2390401E+09	.1668691E+09	.1097145E+10	-.9497402E+10	-.1801009E+11	-.6198537E+09	-.1490847E+08
X(6)	-.5878872E+12	-.1169100E+11	-.9555249E+10	-.5378949E+11	.4049040E+12	.8966981E+12	.2982434E+11	.6901851E+09
X(16)	.2529772E+13	.4843506E+11	.3907659E+11	.2268019E+12	-.1801771E+13	-.3777301E+13	-.1203665E+12	-.3002356E+10
X(26)	.7710690E+11	.1474596E+10	.1108272E+10	.6788124E+10	-.5528809E+11	-.1112331E+12	-.3562238E+10	-.9138234E+08
X(10)	-.5594548E+09	-.1082682E+08	-.9445522E+07	-.5044426E+08	.4201482E+09	.8307636E+09	.2457267E+08	.7191077E+06
X(8)	.1336406E+13	.2542144E+11	.2890763E+11	.1278382E+12	-.1068475E+13	-.2118980E+13	-.5280607E+11	-.1706932E+10
X(27)	.1599750E+11	.3171459E+09	.2183715E+09	.1423343E+10	-.1103599E+11	-.2344621E+11	.8267661E+09	-.1967492E+08
X(11)	-.3672906E+08	-.7140526E+06	-.6315962E+06	-.3381946E+07	.3057918E+08	.4946337E+08	.1580286E+07	.4639049E+05
X(23)	-.6028660E+08	-.1163715E+07	-.9316048E+06	-.5420859E+07	.4531525E+08	.9098721E+08	.2961091E+07	.7216719E+05
X(13)	.1036238E+08	.2173259E+06	.2375033E+06	.1066960E+07	-.7688641E+07	-.1602644E+08	.6409505E+06	.1649601E+05
X(28)	.8736641E+10	.9481226E+08	.1439931E+09	.4691823E+09	-.1070780E+11	-.7058914E+10	-.2341034E+09	-.5496351E+07
X(25)	-.4759605E+05	-.8770111E+03	-.5693231E+03	-.3934083E+04	.3788480E+05	.5561141E+05	.1874241E+04	.5403432E+02
X(20)	.4367830E+11	.8349143E+09	.5984197E+09	.3851693E+10	-.3052638E+11	-.6216007E+11	-.2283720E+10	-.5242574E+08
X(14)	-.3340232E+13	-.6288123E+11	-.5120345E+11	-.3006918E+12	.2469013E+13	.4935661E+13	.1584406E+12	.3827645E+10
X(30)	.1626785E+08	.3176964E+06	.3074939E+06	.1575379E+07	-.1175718E+08	-.2619405E+08	-.7966281E+06	-.1996577E+05
DT	-.1947064E+11	-.3698681E+09	-.3793511E+09	-.1830013E+10	.1522503E+11	.2919127E+11	.9537569E+09	.2329063E+08
X(15)	-.2389900E+09	-.4421717E+07	-.3470624E+07	-.2164803E+08	.1620521E+09	.3664334E+09	.1252011E+08	.2880767E+06
X(43)	-.8272217E+09	-.1600561E+08	-.1196221E+08	-.7361415E+08	.6066439E+09	.1208814E+10	.3825663E+08	.9788337E+06
X(21)	-.6965436E+07	-.1242574E+06	-.8442461E+05	-.5503746E+06	.5446783E+07	.8655013E+07	.2587335E+06	.7671997E+04
X(47)	.4138924E+06	.8037883E+04	.7445426E+04	.3494618E+05	-.3788676E+06	-.3907561E+06	-.1665659E+05	-.4199254E+03
X(31)	-.1644810E+08	-.3142826E+06	-.2249955E+06	-.1445845E+07	.1184562E+08	.2331717E+08	.7886120E+06	.1959393E+05
X(42)	-.8071335E+09	-.1573790E+08	-.1302039E+08	-.7356582E+08	.5525694E+09	.1259863E+10	.4115620E+08	.9896533E+06
X(46)	.8211904E+06	.1531389E+05	.1416797E+05	.7395067E+05	-.5545569E+06	-.1577288E+07	-.2962601E+05	-.7993667E+03
X(36)	.4736797E+06	.9222122E+04	.7962371E+04	.4514209E+05	-.3240090E+06	-.8019868E+06	-.2425874E+05	-.6092046E+03

FRIDAY, JUL 2, 1976

	X( 8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X( 7)	-.2002429E+13	-.2985424E+11	-.1604164E+08	.3095175E+08	-.2433457E+08	.1699160E+12	-.9182862E+05	.6545120E+11
X(19)	-.1831907E+10	.2315257E+08	-.1691604E+05	-.3817185E+05	.5374760E+05	-.1601820E+09	.9341983E+02	-.4916325E+08
DC	-.2626865E+11	-.4004610E+09	.1071312E+06	.3822814E+06	-.2977076E+06	.2099512E+10	-.1285204E+04	.8340414E+09
X(18)	-.4984536E+11	-.7973718E+09	.2100113E+06	.8122200E+06	-.5644332E+06	.4246826E+10	-.2435694E+04	.1670161E+10
X( 6)	-.2392366E+13	.3740983E+11	-.1254688E+08	.3718634E+08	.2881304E+08	-.2099535E+12	.1139113E+06	-.7238160E+11
X(16)	-.1043065E+14	-.1570782E+12	.6332655E+08	.1643470E+09	-.1223864E+09	.8786968E+12	-.4861678E+06	.3258642E+12
X(26)	-.3195328E+12	.4751206E+10	.2301594E+07	.4973812E+07	-.3690420E+07	.2673850E+11	-.1464757E+05	.9852710E+10
X(10)	-.2240251E+10	.3536819E+08	-.7222564E+04	-.3589590E+05	.2373448E+05	-.1931437E+09	.1110278E+03	-.7498848E+08
X( 8)	-.5027894E+13	-.8193075E+11	.2244861E+08	.8164712E+08	-.8654627E+08	.4690822E+12	-.2528315E+06	.1784540E+12
X(27)	-.7024868E+11	-.9823960E+09	.6532230E+06	.1030385E+07	-.7982607E+06	.5736637E+10	-.3044832E+04	.2018099E+10
X(11)	.1375020E+09	.2356519E+07	-.6511383E+03	-.2356988E+04	.1929409E+04	-.1286966E+08	.7054737E+01	-.5145190E+07
X(23)	.2477215E+09	.3792075E+07	-.1595652E+04	-.3918430E+04	.2819520E+04	-.2118451E+08	.1152128E+02	-.7821382E+07
X(13)	-.4797717E+08	-.8475109E+06	-.3422566E+03	.7184687E+03	-.9053065E+02	.3803917E+07	-.2401332E+01	.1381031E+07
X(28)	-.2106445E+11	-.4881169E+08	.9694681E+06	.3510108E+06	-.8493837E+06	.2152937E+09	-.6262139E+03	.1627418E+10
X(25)	-.1958964E+06	.2746507E+04	-.1413019E+01	-.2857405E+01	.1955922E+01	-.1545706E+05	.8885133E+02	-.5994887E+04
X(20)	-.1808702E+12	-.2794835E+10	.9852885E+06	.2863686E+07	-.1666151E+07	.1574160E+11	-.8260205E+04	.5439106E+10
X(14)	.1363670E+14	.2096944E+12	-.7084237E+08	-.2134762E+09	.1611290E+09	-.1179074E+13	.6384312E+05	-.4295406E+12
X(30)	-.6552900E+08	-.1037752E+07	.3873330E+03	.1079447E+04	-.9394905E+03	.6040153E+07	-.3140288E+01	.2219508E+07
DT	.8139215E+11	.1286968E+10	-.2633659E+06	-.1263487E+07	.9080583E+06	-.7277231E+10	.3830618E+04	-.2395052E+08
X(15)	.9503545E+09	.1532262E+08	-.5380749E+04	-.1635909E+05	.1117924E+05	-.8139804E+08	.468228E+02	-.3146476E+08
X(43)	.3473815E+10	.5137195E+08	-.2320152E+05	.5307335E+05	.4022848E+05	-.2842974E+09	.1568371E+03	-.1070142E+09
X(21)	.2819293E+08	.3758671E+06	-.2329726E+03	.3534356E+03	.3575572E+03	-.2181379E+07	.1170279E+01	-.8013204E+06
X(47)	-.3024817E+07	.2625924E+05	-.7752519E+01	-.2457944E+02	-.1634671E+02	.1332935E+06	-.8207904E+01	.4373812E+05
X(31)	.6706773E+08	.9498213E+06	-.5089014E+03	-.1031763E+04	.8695537E+03	-.5432213E+07	.3047307E+01	-.2182064E+07
X(42)	.3291585E+10	.5161062E+08	-.2283862E+05	-.5420093E+05	.4120980E+05	-.2899800E+09	.1561883E+03	-.1029388E+09
X(46)	-.2757931E+07	-.4632135E+05	.3217297E+02	.5739695E+02	-.6021727E+02	.2873522E+06	-.1341998E+00	.1106135E+06
X(36)	-.1738764E+07	-.3123162E+05	.1590183E+02	.3107857E+02	-.2586751E+02	.1675140E+06	-.9394191E+01	.6513106E+05

FRIDAY, JUL 2, 1976

	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X( 7)	-.6502847E+13	-.3087522E+08	.1803929E+11	-.9837842E+08	-.4053744E+09	-.2593490E+08	.2698618E+07	.1869299E+08
X(19)	.6145113E+10	.6047135E+05	-.1054406E+08	.2320879E+06	.1437159E+06	.1895128E+05	-.3220300E+04	-.2175504E+05
DC	-.8782033E+11	-.3747812E+06	.2077039E+09	-.5635402E+06	-.5379410E+07	.3631051E+06	.3542603E+05	.2370550E+06
X(18)	-.1676045E+12	-.7174972E+06	.4585847E+09	-.2095643E+07	-.9820027E+07	-.6504138E+06	.6939427E+05	.4606007E+06
X( 6)	.7960248E+13	.3771702E+08	-.2213304E+11	.7795960E+08	.5005220E+09	.3210687E+08	-.3445312E+07	-.2283926E+08
X(16)	-.3379556E+14	-.1610293E+09	.9571738E+11	-.4208593E+09	-.2104192E+10	.1342688E+09	.1459289E+08	.9643154E+08
X(26)	-.1021565E+13	-.4803284E+07	.2894279E+10	-.1324143E+08	-.6577140E+08	-.4090828E+07	.4328089E+06	.2965050E+07
X(10)	.7488878E+10	.3408596E+05	-.2229178E+08	.6775966E+05	.4686568E+06	.3065858E+05	-.3129466E+04	-.1979746E+05
X( 8)	-.1839326E+14	-.9857531E+08	.4549655E+11	-.2211176E+09	-.1126306E+10	.7332469E+08	.7763380E+07	.5110387E+08
X(27)	-.2134490E+12	-.1005659E+07	.6163084E+09	-.2681408E+07	-.1359106E+08	-.8517514E+06	.9377791E+05	.6243403E+06
X(11)	.5149281E+09	.2350855E+04	-.1176187E+07	.8603092E+04	.2984957E+05	.1924899E+04	-.2142659E+03	-.1423299E+04
X(23)	.8115536E+09	.3756600E+04	-.2293765E+07	.9742464E+04	.5074717E+05	.3247963E+04	-.3462631E+03	.2306190E+04
X(13)	-.1555983E+09	-.6449572E+03	.4911054E+06	-.2547926E+02	-.8408202E+04	-.5697970E+03	.6781122E+02	.4007989E+03
X(28)	-.9166143E+11	-.5312941E+06	-.2354853E+09	-.5430649E+07	-.1162194E+07	-.2440103E+06	.2989902E+05	.5745602E+06
X(25)	.8106520E+06	.2650675E+01	-.1683353E+04	.8747381E+01	.3826960E+02	.2376744E+01	.2402261E+00	.1650546E+01
X(20)	-.5856180E+12	-.2413029E+07	.1751467E+10	-.6348575E+07	-.3730835E+08	-.2342879E+07	.2396830E+06	.1611929E+07
X(14)	.4512225E+14	.2060915E+09	-.1284099E+12	.4803668E+09	-.2852888E+10	-.1775136E+09	-.1308396E+08	-.1248835E+09
X(30)	-.2301216E+09	-.1225274E+04	.6305053E+06	-.2857134E+04	-.1466983E+05	.9176416E+03	.1022481E+03	.6727839E+03
DT	.2658334E+12	.1220699E+07	.7303936E+09	.1307471E+07	.1800861E+08	.1116171E+07	-.1129523E+06	.7092904E+06
X(15)	.3175457E+10	.1559520E+05	-.9812784E+07	.3756215E+05	.1868872E+06	.1318993E+05	-.1379403E+04	-.9322298E+04
X(43)	.1110196E+11	.5122120E+05	-.3026304E+08	.1356727E+06	.6925099E+06	.4370457E+05	-.4735884E+04	-.3179649E+05
X(21)	.8458959E+08	.3663444E+03	-.2143172E+06	.1539535E+04	.5460952E+04	.3291773E+03	-.3422337E+02	-.2370583E+02
X(47)	-.5613347E+07	-.1547801E+02	.1724113E+05	.1509592E+02	.3645630E+03	-.2196298E+02	.2154914E+01	.1071703E+03
X(31)	.2184497E+09	.1099046E+04	-.5340690E+06	.3725337E+04	.1354524E+05	.8501428E+03	-.9478522E+02	-.6635144E+03
X(42)	.1100302E+11	.5357327E+05	-.3408469E+08	.1262052E+06	.6814384E+06	.4392133E+05	-.4762279E+04	-.3124192E+05
X(46)	-.1093844E+08	-.7360118E+02	.1974844E+05	-.2011320E+03	-.6425524E+03	-.4411892E+02	.4919126E+01	.3183469E+02
X(36)	-.6578870E+07	-.3164880E+02	.1918320E+05	-.9727022E+02	-.4089692E+03	-.2606725E+02	.2897619E+01	.1916616E+02

FRIDAY, JUL 2, 1976

	X(42)	X(46)	X(36)
X(7)	.5202594E+09	.1322611E+07	-.3632976E+06
X(19)	.1808255E+05	-.2090071E+04	.2482850E+03
DC	.7058588E-07	.1590024E+05	-.4055170E+04
X(18)	.1449920E+08	.2936289E+05	-.8907876E+04
X(6)	-.6646670E+09	-.1529331E+07	.4534332E+06
X(16)	.2739679E+10	.6384681E+07	-.2007430E+07
X(26)	.8496161E+08	.2012106E+06	-.6129098E+05
X(10)	-.6201814E+06	-.1304692E+04	.3908419E+03
X(8)	.1110012E+10	.4592395E+07	-.5892794E+06
X(27)	.1817644E+08	.4143539E+05	-.1533564E+05
X(11)	-.3523132E+05	-.1080656E+03	.2519778E+02
X(23)	-.6737077E+05	-.1496793E+03	.4723610E+02
X(13)	-.1531680E+05	.1629196E+02	-.9853841E+01
X(28)	-.3457900E+07	.3218072E+05	-.9740409E+04
X(25)	-.5172614E+02	-.9899324E-01	.3307956E-01
X(20)	-.5278559E+08	-.9876506E+05	-.3514316E+05
X(14)	-.3661068E+10	-.8525086E+07	.2469462E+07
X(30)	.1733716E+05	.4037575E+02	-.1110507E+02
DT	-.2555583E+08	-.5460460E+05	.1498621E+05
X(15)	-.2705934E+06	-.6250042E+03	.1853857E+03
X(43)	-.9085275E+06	-.2071217E+04	.6570005E+03
X(21)	-.6555778E+04	-.1796493E+02	.4481834E+01
X(47)	.5576205E+03	.7558886E+00	-.1977167E+00
X(31)	-.1563652E+05	-.4639033E+02	.1286507E+02
X(42)	-.9225398E+06	-.2115641E+04	.6767175E+03
X(46)	.7045472E+03	.3169200E+01	-.5457477E+00
X(36)	.5086152E+03	.1343408E+01	-.3421887E+00

FRIDAY, JUL 2, 1976

INVERSE OF THE COVARIATES  
CROSS PRODUCT MATRIX  
FOR ERROR.

	X(7)	X(19)	DC	X(18)	X(6)	X(16)	X(26)	X(10)
X(7)	.1805863E+00	-.1239565E-05	.5927254E-03	.2751055E-04	-.1941942E+00	-.4842619E+00	-.1688378E-04	.5546682E-04
X(19)	-.1239565E-05	.2596893E-06	.9300797E-07	-.5194088E-06	.4298629E-04	-.2444398E-06	-.5144130E-07	.4045289E-08
DC	.5927254E-03	.9300797E-07	.1012294E-03	-.3284289E-05	.9670932E-04	-.1688728E-02	.3237822E-05	.7437198E-06
X(18)	.2751055E-04	.5194088E-06	-.3284289E-05	.2605887E-05	-.2643939E-03	-.8324424E-05	.1504850E-05	-.1002204E-07
X(6)	-.1941942E+00	.4298629E-04	.9670932E-04	-.2643939E-03	.1804058E+01	.6585289E+00	-.1504610E-03	.4659630E-04
X(16)	-.4842619E+00	.2444398E-06	-.1688728E-02	-.8324424E-05	.6585289E+00	.1328418E+01	-.1389060E-03	.1398214E-03
X(26)	-.1688378E-04	.5144130E-07	-.3237822E-05	.1504850E-05	-.1504610E-03	.1389060E-03	.2493953E-03	-.2665836E-07
X(10)	.5546682E-04	.4045289E-08	.7437198E-06	-.1002204E-07	.4659630E-04	-.1398214E-03	.2665836E-07	.3984366E-07
X(8)	.9286421E+00	.1296099E-03	.1888227E-01	-.5260011E-03	.3740970E+01	-.2129900E+01	-.1466526E-02	.8960793E-03
X(27)	.1498853E-04	-.2499798E-07	.7949188E-06	-.3353398E-06	-.1455433E-05	.1358568E-04	-.5362862E-04	.6931454E-08
X(11)	.9572305E-07	.3655694E-08	.3306553E-07	.8202544E-09	-.3723988E-06	.4005973E-07	.6093813E-08	.2428101E-09
X(23)	-.2459315E-07	-.8103654E-09	.5000352E-08	.4027598E-09	.6637542E-07	-.2243627E-07	-.1470436E-08	-.1517584E-10
X(13)	-.7685311E-07	.9593005E-10	.4874331E-09	-.5986118E-09	.5557746E-06	-.6733390E-08	.1164855E-06	.6540583E-06
X(28)	-.2108836E-03	.1689242E-06	.8354065E-05	.1947037E-05	.5599767E-02	.1760133E-02	.7814213E-04	.4212647E-06
X(25)	-.1362126E-10	.7044581E-12	.1134630E-10	-.2238822E-12	.2312300E-09	-.7496638E-11	.1349539E-11	-.1528190E-12
X(20)	-.1650180E-02	.1318049E-05	-.2543345E-03	.4884282E-05	.5070085E-03	.4552249E-02	.2969636E-05	-.2023489E-05
X(14)	.5677413E+00	.6335010E-04	.1686439E-03	.3642672E-03	-.5389749E+01	-.2000904E+01	.1124157E-02	.1381210E-03
X(30)	.1577080E-06	.3751919E-10	.1396378E-08	.2981316E-09	.8841917E-06	.4805922E-07	-.2016412E-06	-.2108392E-11
DT	.5718217E-04	.1294532E-06	.2445533E-05	.6057315E-06	.1855003E-02	.4566604E-03	.1638331E-03	.1338030E-06
X(15)	-.1722089E-04	.3531054E-09	.8166985E-07	.5462472E-08	.3637060E-04	.4108971E-04	.6208970E-08	.9323271E-08
X(43)	.1760712E-06	.3734668E-08	.1120186E-07	.5311885E-08	-.1031412E-06	.5247725E-06	.4691854E-07	.7923586E-10
X(21)	-.7116914E-07	.1015771E-09	.1191590E-07	.8955932E-10	-.9267221E-07	.1846482E-06	-.2460916E-11	.7769608E-10
X(47)	.7169797E-09	.1644982E-10	.7732031E-10	-.3205125E-11	.1657217E-09	.3274633E-08	.5902776E-09	.5320094E-12
X(31)	-.4239683E-07	.7053960E-11	.4115881E-09	.1179257E-09	.1989186E-06	-.1344711E-07	.4282329E-07	.2702776E-12
X(42)	.6105766E-06	.1119825E-07	.2994502E-07	.2403913E-07	.8906938E-06	.1416510E-05	.4907051E-07	-.2082484E-09
X(46)	.1187470E-08	.4149080E-10	.2435282E-09	.8350306E-11	.2342713E-08	-.6026735E-08	-.1572923E-08	.1218827E-11
X(36)	.1714323E-09	-.1443678E-11	-.1226436E-10	.1063644E-10	-.5967270E-09	-.3106513E-09	.9951100E-10	.2586154E-13

FRIDAY, JUL 2, 1976

	X( 8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X( 7)	.9286421E+00	.1498853E-04	.9572305E-07	-.2459315E-07	-.7685311E-07	-.2108836E-03	-.1362126E-10	-.1650180E-02
X(19)	.1296099E-03	-.2499798E-07	.3655694E-08	-.8103654E-09	.9593005E-10	.1689242E-06	-.7044581E-12	-.1318049E-05
DC	.1888227E-01	.7949188E-06	-.3306553E-07	.5000352E-08	.4874331E-09	.8354065E-05	.1134630E-10	-.2543345E-03
X(18)	-.5260011E-03	-.3353398E-06	.8202544E-09	-.4027598E-09	-.5986118E-09	-.1947037E-05	-.2238822E-12	.4884282E-05
X( 6)	.3740970E+01	-.1455433E-05	-.3723988E-06	.6637542E-07	.5557746E-06	.5599767E-02	.2312300E-09	.5070085E-03
X(16)	-.2129900E+01	.1358568E-04	.4005973E-07	-.2243627E-07	-.6733390E-08	.1760133E-02	-.7496638E-11	.4552249E-02
X(26)	-.1466526E-02	-.5362862E-04	.6093813E-08	-.1470436E-08	.1164655E-06	.7814213E-04	.1349539E-11	.2969636E-05
X(10)	.8960793E-03	.6931454E-08	.2428101E-09	-.1517584E-10	.6540583E-12	.4212647E-06	-.1528190E-12	-.2023489E-05
X( 8)	.2856643E+02	.4167100E-03	-.1021639E-05	.2541978E-06	.3668037E-07	-.1395963E-01	.5723142E-09	.4973117E-01
X(27)	.4167100E-03	.1439636E-04	-.1584593E-08	.5929140E-09	-.1731676E-07	-.2678182E-04	-.6709521E-12	-.8119773E-06
X(11)	-.1021639E-05	-.1584593E-08	.2072644E-09	-.2675403E-10	-.1764665E-12	-.2590044E-08	-.7121689E-13	.5166552E-08
X(23)	.2541978E-06	.5929140E-09	-.2675403E-10	.6457796E-11	-.7070728E-14	.1477772E-08	.5439456E-14	-.2593073E-08
X(13)	.3668037E-07	-.1731676E-07	-.1764665E-12	-.7070728E-14	.1286104E-09	-.2877317E-08	-.3303831E-15	.8282859E-09
X(18)	-.1395963E-01	-.2678182E-04	-.2590044E-08	.1477772E-08	.2877317E-08	.2614605E-02	-.8950221E-12	-.1293612E-04
X(25)	.5723142E-09	-.6709521E-12	.7121689E-13	.5439456E-14	.3303831E-15	-.9950221E-12	.4424345E-16	-.1960061E-11
X(20)	-.4973117E-01	.8119773E-06	.5166552E-08	.2593073E-08	.8282859E-09	-.1293612E-04	-.1960061E-11	.6823555E-03
X(14)	-.1151550E+02	-.1862761E-03	.9047869E-06	-.1111388E-06	.8988714E-07	-.1712456E-01	.6366981E-09	-.1948113E-02
X(30)	-.1453782E-06	.4250325E-07	.7637772E-12	.9132572E-14	-.1345898E-09	-.1832243E-08	-.1037303E-14	.3011327E-08
DT	.4556667E-02	.2913323E-04	-.1938085E-10	-.2860026E-10	-.1195247E-06	-.8435454E-03	.2168940E-12	.4134655E-05
X(15)	-.2238822E-03	.3447747E-09	.2168748E-10	-.3031096E-11	-.2922892E-11	-.3387159E-06	-.1418806E-13	.1846759E-06
X(43)	.1562688E-05	.2152961E-07	-.6216273E-10	.1496301E-10	-.1484452E-10	-.5127979E-07	-.1344954E-13	.1048869E-07
X(21)	-.2204368E-05	.5266887E-10	.10665372E-10	-.8342516E-12	-.7595558E-14	-.2168954E-08	-.6630210E-14	.2702383E-07
X(47)	-.6767753E-08	-.2357843E-09	.4277964E-12	-.1005600E-12	.5828547E-14	-.1855596E-10	.7964725E-16	.3412116E-10
X(31)	.7999757E-07	-.1128931E-07	-.2552762E-12	-.4243541E-13	.2028697E-10	-.3481072E-08	.3369475E-15	.7666958E-09
X(42)	-.2688502E-05	.3245089E-07	.2229404E-09	-.3618641E-10	.7570056E-10	.3258263E-07	.3081980E-13	.2547134E-07
X(46)	.2031527E-07	.5640712E-09	-.1560445E-11	.2550285E-12	.3923600E-14	.1843829E-09	-.1482770E-15	-.2482673E-10
X(36)	.9784788E-10	-.2341037E-10	.7352083E-14	-.1514697E-14	-.6862162E-13	-.3606837E-11	-.4772535E-17	-.5865982E-11

FRIDAY, JUL 2, 1976

	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X( 7)	.5677413E+00	.1577080E-06	.5718217E-04	-.1722089E-04	.1760712E-06	-.7116914E-07	-.7169797E-09	-.4339683E-07
X(19)	-.6335010E-04	.3751919E-10	-.1394532E-06	-.3531054E-09	-.3734668E-08	.1015771E-09	.1644982E-10	-.7053960E-11
DC	.1686439E-03	.1396376E-08	-.2445533E-05	.8166985E-07	.1120186E-07	-.1191590E-07	.7732031E-10	-.4115881E-09
X(18)	.3642672E-03	-.2981316E-09	.6057315E-06	.5462472E-08	.5311885E-08	.8955932E-10	-.3205125E-11	.1179257E-09
X( 6)	-.5389749E+01	.8841917E-06	-.1855003E-02	.3637060E-04	-.1031412E-06	-.9267221E-07	.1657217E-09	.1989186E-06
X(16)	-.2000904E+01	.4805822E-07	-.4566604E-03	.4108971E-04	-.5247725E-06	.1846482E-06	.3274633E-08	-.1344711E-07
X(26)	-.1124157E-02	-.2016412E-06	-.1638331E-03	.6208970E-08	-.4691854E-07	.2460916E-11	.5902776E-09	.4282329E-07
X(10)	-.1381210E-03	-.2108392E-11	-.1338030E-06	.9323271E-08	.7923586E-10	-.7769608E-10	.5320094E-12	.2702776E-12
X( 8)	-.1151550E+02	-.1453782E-06	.4556667E-02	-.2238827E-03	.1562688E-05	-.2204368E-05	-.6767753E-08	.7999757E-07
X(27)	-.1862761E-03	.4250325E-07	.2913323E-04	.3447747E-09	.2152961E-07	.5286687E-10	-.2357843E-09	-.1128931E-07
X(11)	.9047669E-06	.7637772E-12	-.1938085E-10	.2168748E-10	-.6216273E-10	.1065372E-10	.4277964E-12	-.2552762E-12
X(23)	-.1111388E-06	.9132572E-14	-.2860026E-10	.3031096E-11	.1496301E-10	-.8342516E-12	.1005600E-12	-.4243541E-13
X(13)	-.8988714E-07	-.1345898E-09	-.1195247E-06	-.2922892E-11	-.1484452E-10	-.7595558E-14	.5828547E-14	.2028697E-10
X(28)	-.1712456E-01	.1832243E-08	.8435454E-03	.3387159E-06	-.5127979E-07	-.2168954E-08	-.1855596E-10	-.3481072E-08
X(25)	-.6366981E-09	.1037303E-14	.2168940E-12	.1418806E-13	-.1344954E-13	.6630210E-14	.7964725E-16	.3369475E-15
X(20)	-.1948113E-02	.3011327E-08	.4134655E-05	.1846759E-06	-.1048869E-07	.2702383E-07	.3412116E-10	.7666958E-09
X(14)	.1647830E+02	.2118605E-06	.5175889E-02	.1060688E-03	-.3054206E-06	.2561176E-06	.6507637E-09	.6926484E-07
X(30)	.2118605E-06	.2240835E-09	.1213391E-06	.9056117E-11	.6767862E-11	-.7115428E-15	.6692727E-13	.4780945E-10
DT	.5175889E-02	.1213391E-06	.4273971E-03	.1091452E-06	.2544597E-07	.6573293E-09	.2613625E-10	-.1691320E-07
X(15)	.1060688E-03	.9056117E-11	.1091452E-06	.4088135E-08	-.2002132E-10	.1557457E-10	.5372852E-13	-.2076186E-11
X(43)	-.3054206E-06	.6767862E-11	.2544597E-07	.2002132E-10	.1232750E-08	.1708382E-11	-.6780875E-11	-.2517110E-11
X(21)	.2561176E-06	.7115428E-15	.6673293E-09	.1557457E-10	.1708382E-11	.2268338E-11	-.1075241E-13	-.1010799E-13
X(47)	.6507637E-09	.6692727E-13	-.2613625E-10	.5372852E-13	-.6780875E-11	-.1075241E-13	.4791711E-13	.3190885E-13
X(31)	-.6926484E-07	.4780945E-10	-.1691320E-07	-.2076186E-11	-.2517110E-11	-.1010799E-13	.3190885E-13	.1282559E-10
X(42)	.6492971E-06	.4919770E-11	-.2584806E-07	.8172980E-10	-.3447747E-09	.3471224E-11	.1789687E-10	-.4226209E-11
X(46)	-.5643843E-08	.9791489E-13	-.1296984E-10	.2259234E-12	-.1805882E-10	.2320911E-13	-.1244969E-12	-.5354761E-13
X(36)	.2033124E-09	-.2793072E-13	.5378614E-12	-.1915389E-13	.1887539E-12	.2894031E-15	.2708788E-15	.1283048E-13

FRIDAY, JUL 2, 1976

	X(42)	X(46)	X(36)
X( 7)	-.6105766E-06	.1187470E-08	.1714323E-09
X(19)	.1119825E-07	-.4149080E-10	-.1443678E-11
DC	-.2994502E-07	.2435282E-09	-.1226436E-10
X(18)	-.2403913E-07	.8350306E-11	.1063644E-10
X( 6)	.8906938E-06	.2342713E-08	-.5967270E-09
X(16)	.1416510E-05	-.6026735E-08	-.3106513E-09
X(26)	.4907051E-07	-.1572923E-08	.9951100E-10
X(10)	-.2082484E-09	.1218827E-11	.2586154E-13
X( 8)	-.2688502E-05	.2031627E-07	.9784788E-10
X(27)	-.3245089E-07	.5640712E-09	-.2341037E-10
X(11)	.2229404E-09	-.1560445E-11	.7352083E-14
X(23)	-.3618641E-10	.2550285E-12	-.1514697E-14
X(13)	.7570056E-10	.3923600E-14	-.6862162E-13
X(28)	.3258263E-07	.1843829E-09	-.3606837E-11
X(25)	.3081980E-13	-.1482770E-15	-.4772535E-17
X(20)	-.2547134E-07	-.2482673E-10	-.5865982E-11
X(14)	.6492971E-06	-.6643843E-08	.2033124E-09
X(30)	.8918770E-11	.9791489E-13	-.2793072E-13
DT	-.2584806E-07	-.1296984E-10	.5378614E-12
X(15)	.8172980E-10	-.2259234E-12	-.1915389E-13
X(43)	-.3434786E-08	.1805882E-10	.1887539E-12
X(21)	-.3471224E-11	.2320911E-13	.2894031E-15
X(47)	.1789687E-10	-.1244969E-12	.2708788E-15
X(31)	-.4226208E-11	-.5354761E-13	.1283048E-13
X(42)	.1102868E-07	.5377153E-10	-.1185847E-11
X(46)	-.5377153E-10	.3655476E-12	-.6269715E-15
X(36)	-.1185847E-11	-.6269715E-15	.1172667E-14

FRIDAY, JUL 2, 1976

## ANALYSIS OF COVARIANCE TABLE

SOURCE	DF	YY	SUM-SQUARES (DUE)	SUM-SQUARES (ABOUT)	DF	MEAN-SQUARE
TREATMENT (BETWEEN)	1	.1261130E+00			1	
ERROR (WITHIN)	768	.4880598E+01	.4872293E+01	.8304637E-02	741	.1120734E-04
TREATMENT + ERROR (TOTAL)	769	.5006711E+01	.4998291E+01	.8419326E-02	742	.1134680E-04
DIFFERENCE FOR TESTING ADJUSTED TREATMENT MEANS				.1146886E-03	1	.1146886E-03

NULL HYPOTHESIS. NO DIFFERENCE AMONG TREATMENTS AFTER  
ADJUSTING WITH COVARIATES.

F( 1, 741) = 10.233

FRIDAY, JUL 2, 1976

TABLE OF COEFFICIENTS, STANDARD ERRORS AND COMPUTED T-VALUES

TREATMENT (BETWEEN)			
COEFFICIENT	STAND. ERROR	T-VALUE	CONFIDENCE
X( 7) -.4937500000E+01	.7541970065E+04	-.00065	50.02084
X(19) -.4592895508E-02			
DC -.6787109375E-01	.1156418273E+03	-.00059	50.01868
X(18) -.1411132813E+00	.3547252023E+03	-.00040	50.01266
X( 6) -.6468750000E+01	.6814533845E+04	.00095	50.03022
X(16) -.2812500000E+02			
X(26) -.8476562500E+00			
X(10) -.5981445313E-02	.9081488891E+01	.00066	50.02097
X( 8) -.1490625000E+02			
X(27) -.1684570313E+00			
X(11) -.4062652588E-03			
X(23) -.6656846729E-03			
X(13) -.1373291016E-03			
X(28) .4394531250E-02	.1571360097E+03	.00003	50.00089
X(25) .4954636097E-06	.1009466851E-02	.00049	50.01562
X(20) -.4920468750E+00	.7898122010E+03	-.00063	50.02007
X(14) .3600000000E+02	.7193752027E+05	.00050	50.01593
X(30) -.1864433289E-03			
DT .2441406250E+00			
X(15) .2792358398E-02	.2075560238E+01	.00135	50.04282
X(43) .8544921875E-02	.8911957283E+01	.00096	50.03052
X(21) .6556510925E-04	.1943009886E+00	.00034	50.01074
X(47) -.4678964615E-05	.1572081388E-01	-.00030	50.00947
X(31) .1649856567E-03			
X(42) .9552001953E-02			
X(46) -.8404254913E-05	.1906491555E-01	-.00044	50.01403
X(36) -.5528330803E-05			

FRIDAY, JUL 2, 1976

TABLE OF COEFFICIENTS, STANDARD ERRORS AND COMPUTED T-VALUES

ERROR (WITHIN)			
COEFFICIENT	STAND. ERROR	T-VALUE	CONFIDENCE
X( 7) .3555396848E-01	.1422635287E-02	24.99163	100.00000
X(19) -.2523254642E-04	.1705996823E-05	-14.79050	100.00000
DC -.4913271300E-03	.3368251169E-04	-14.58701	100.00000
X(18) -.6687458270E-04	.5404170480E-05	-12.37462	100.00000
X( 6) .5148570312E-01	.4496519181E-02	11.45012	100.00000
X(16) -.4154925132E-01	.3858500732E-02	-10.76824	100.00000
X(26) -.5241700453E-03	.5288830731E-04	-9.91464	100.00000
X(10) .6519163625E-05	.6682375078E-06	9.75576	100.00000
X( 8) -.1640133878E+00	.1789283898E-01	-9.16643	100.00000
X(27) .1025655275E-03	.1270215885E-04	8.07485	100.00000
X(11) .3774287055E-06	.4819828854E-07	7.83107	100.00000
X(23) .6708943609E-07	.8507332046E-08	7.88607	100.00000
X(13) -.2986234606E-06	.3796551934E-07	-7.86581	100.00000
X(28) -.1188313456E-02	.1711804908E-03	-6.94187	100.00000
X(25) -.1518984377E-09	.2226771748E-10	6.82146	100.00000
X(20) .5356671819E-03	.8744934855E-04	6.12546	100.00000
X(14) -.7681445512E-01	.1358962305E-01	-5.65243	100.00000
X(30) .2759776148E-06	.5011366554E-07	5.50703	100.00000
DT .4180486093E-03	.6920971176E-04	6.04033	100.00000
X(15) .1114083609E-05	.2140493136E-06	5.20480	99.99999
X(43) -.5621083340E-06	.1175408116E-06	-4.78224	99.99999
X(21) -.2218482095E-07	.5042025894E-08	-4.39998	99.99998
X(47) .2729989349E-08	.7328186723E-09	3.72533	99.98951
X(31) -.4250676926E-07	.1198919286E-07	-3.54542	99.97917
X(42) .1104011881E-05	.3515711970E-06	3.14022	99.91224
X(46) -.4234341895E-08	.2024059184E-08	-2.09200	98.16111
X(36) .2159724752E-09	.1146406449E-09	1.88391	97.00157

FRIDAY, JUL 2, 1976

TABLE OF COEFFICIENTS, STANDARD ERRORS AND COMPUTED T-VALUES

TREATMENT-ERROR (TOTAL)				
	COEFFICIENT	STAND. ERROR	T-VALUE	CONFIDENCE
X(7)	.1559846990E-01	.1431391022E-02	24.86984	100.00000
X(19)	-.2512983385E-04	.1716274552E-05	-14.64208	100.00000
DC	-.4908067751E-03	.3389103884E-04	-14.48190	100.00000
X(18)	-.6685428365E-04	.5437687156E-05	-12.29462	100.00000
X(6)	.5158089811E-01	.4524310639E-02	11.40083	100.00000
X(16)	-.4162832686E-01	.3882354165E-02	-10.72244	100.00000
X(26)	-.5305676544E-03	.5315815892E-04	-9.98093	100.00000
X(10)	.6530462256E-05	.6723729896E-06	9.71256	100.00000
X(8)	-.1635975263E+00	.1800334763E-01	-9.08706	100.00000
X(27)	.1047558767E-03	.1276236403E-04	8.20819	100.00000
X(11)	.3787865356E-06	.4849335473E-07	7.81110	100.00000
X(23)	.6638924334E-07	.8557266753E-08	7.75823	100.00000
X(13)	-.2816124516E-06	.3782416330E-07	-7.44531	100.00000
X(28)	-.1194748623E-02	.1722303775E-03	-6.93692	100.00000
X(25)	.1518970449E-08	.2240583735E-10	6.77935	100.00000
X(20)	.5337462909E-03	.8789895955E-04	6.06601	100.00000
X(14)	-.7711871951E-01	.1367358043E-01	-5.63998	100.00000
X(30)	.2807032514E-06	.5040259262E-07	5.56922	100.00000
DT	.3638158090E-03	.6751733032E-04	5.38848	100.00000
X(15)	.1103057631E-05	.2153490717E-06	5.12218	99.99998
X(43)	-.5662642552E-06	.1182626572E-06	-4.78819	99.99990
X(21)	-.2225205614E-07	.5073255867E-08	-4.38615	99.99934
X(47)	.2753726771E-08	.7373263211E-09	3.73475	99.98888
X(31)	-.4431177295E-07	.1205019085E-07	-3.67727	99.98736
X(42)	.1111822856E-05	.3537433544E-06	3.14302	99.91307
X(46)	-.4248912395E-08	.2036608650E-08	-2.08627	98.13524
X(36)	.2112297319E-09	.1153420792E-09	1.83133	96.62742

FRIDAY, JUL 2, 1976

TABLE OF ADJUSTED MEANS AND STANDARD ERRORS

TREATMENT NO.	TREATMENT MEAN	ADJUSTED MEAN	SE ADJUSTED
1	.4055491E+00	.3941703E+00	.3054607E-03
2	.3799314E+00	.3922870E+00	.3279592E-03

FRIDAY, JUL 2, 1976

TABLE OF INTERCEPTS

INTERCEPT = -.510084001E+01  
(BETWEEN)

INTERCEPT = .3524255916E+00  
(TOTAL)

TREATMENT NO.	INTERCEPT (WITHIN)
1	.3532068342E+00
2	.3513335574E+00

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
1	.3265000E+00	.3121919E+00	.1430809E-01	4.58	1
2	.3436000E+00	.3352483E+00	.8351668E-02	2.49	1
3	.3605000E+00	.3578903E+00	.2609731E-02	.73	1
4	.3802000E+00	.3807374E+00	-.5374150E-03	-.14	1
5	.4021000E+00	.4070981E+00	-.4998074E-02	-1.23	1
6	.4315000E+00	.4357605E+00	-.4260536E-02	-.98	1
7	.4661000E+00	.4665851E+00	-.4851278E-03	-.10	1
8	.5010000E+00	.4994457E+00	.1554285E-02	.31	1
9	.5415000E+00	.5342322E+00	.7267766E-02	1.36	1
10	.5491000E+00	.5414120E+00	.7687999E-02	1.42	1
11	.5504000E+00	.5485642E+00	.1735766E-02	.32	1
12	.5501000E+00	.5559882E+00	-.5888248E-02	-1.06	1
13	.5536000E+00	.5633834E+00	-.9783376E-02	-1.74	1
14	.3298000E+00	.3209558E+00	.8844211E-02	2.76	1
15	.3458000E+00	.3500868E+00	-.4286808E-02	-1.22	1
16	.3704000E+00	.3741261E+00	-.3726139E-02	-1.00	1
17	.3989000E+00	.4007396E+00	-.1839611E-02	-.46	1
18	.4296000E+00	.4300144E+00	-.4144030E-03	-.10	1
19	.4608000E+00	.4618178E+00	-.1017793E-02	-.22	1
20	.4952000E+00	.4960000E+00	-.7999985E-03	-.16	1
21	.5440000E+00	.5324243E+00	.1157567E-01	2.17	1
22	.5491000E+00	.5399674E+00	.9132583E-02	1.69	1
23	.5499000E+00	.5475945E+00	.2305536E-02	.42	1
24	.5499000E+00	.5553046E+00	-.5404613E-02	-.97	1
25	.5549000E+00	.5630970E+00	-.8197030E-02	-1.46	1
26	.3320000E+00	.3263897E+00	.5610316E-02	1.72	1
27	.3515000E+00	.3539539E+00	-.2453893E-02	-.69	1
28	.3814000E+00	.3818866E+00	-.4866290E-03	-.13	1
29	.4114000E+00	.4096431E+00	.1756896E-02	.43	1
30	.4406000E+00	.4401707E+00	.4293099E-03	.10	1
31	.4730000E+00	.4729224E+00	.7760901E-04	.02	1
32	.5128000E+00	.5089716E+00	.3828437E-02	.75	1
33	.5499000E+00	.5469471E+00	.2952924E-02	.54	1
34	.5510000E+00	.5548112E+00	-.3811225E-02	-.69	1
35	.5561000E+00	.5627629E+00	-.6662855E-02	-1.18	1
36	.3453000E+00	.3374766E+00	.7823430E-02	2.32	1
37	.3728000E+00	.3700828E+00	.2717237E-02	.73	1
38	.4011000E+00	.3970458E+00	.4054200E-02	1.02	1
39	.4282000E+00	.4269152E+00	.1284795E-02	.30	1
40	.4588000E+00	.4597826E+00	-.2982637E-02	-.65	1
41	.4941000E+00	.4954965E+00	-.1396470E-02	-.28	1
42	.5441000E+00	.5338871E+00	.1021290E-01	1.91	1
43	.5490000E+00	.5418725E+00	.7127492E-02	1.32	1
44	.5503000E+00	.5499576E+00	.3423874E-03	.06	1
45	.3618000E+00	.3530249E+00	.8775069E-02	2.49	1
46	.3895000E+00	.3882818E+00	.1218209E-02	.31	1
47	.4200000E+00	.4197258E+00	.2742454E-03	.07	1
48	.4440000E+00	.4443637E+00	-.3637389E-03	-.08	1
49	.4850000E+00	.4853864E+00	-.3864149E-03	-.08	1
50	.5252000E+00	.5243064E+00	.8936132E-03	.17	1

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
51	.5353000E+00	.5324501E+00	.2849939E-02	.54	1
52	.2986000E+00	.2934517E+00	.5148326E-02	1.75	1
53	.3170000E+00	.3164811E+00	.5188858E-03	.16	1
54	.3345000E+00	.3361362E+00	-.1636200E-02	-.49	1
55	.3545000E+00	.3561963E+00	-.1696323E-02	-.48	1
56	.3818000E+00	.3824290E+00	-.6290195E-03	-.16	1
57	.4091000E+00	.4089261E+00	.1738620E-03	.04	1
58	.4375000E+00	.4385246E+00	-.1024609E-02	-.23	1
59	.4667000E+00	.4679334E+00	-.1233430E-02	-.26	1
60	.4960000E+00	.5002125E+00	-.4212476E-02	-.84	1
61	.5029000E+00	.5068777E+00	-.3977691E-02	-.78	1
62	.5100000E+00	.5136111E+00	-.3611085E-02	-.70	1
63	.5183000E+00	.5204120E+00	-.2112001E-02	-.41	1
64	.3036000E+00	.3032882E+00	.3118248E-03	.10	1
65	.2272000E+00	.2295495E+00	-.2349469E-02	-.71	1
66	.3527000E+00	.3516854E+00	.1014555E-02	.29	1
67	.3778000E+00	.3763509E+00	.1449103E-02	.39	1
68	.4018000E+00	.4035752E+00	-.1775228E-02	-.44	1
69	.4279000E+00	.4332133E+00	-.5313274E-02	-1.23	1
70	.4579000E+00	.4651138E+00	-.7213751E-02	-1.55	1
71	.4978000E+00	.4991419E+00	-.1341924E-02	-.27	1
72	.5044000E+00	.5061923E+00	-.1792314E-02	-.35	1
73	.5117000E+00	.5133222E+00	-.1622237E-02	-.32	1
74	.3128000E+00	.3078604E+00	.4939589E-02	1.60	1
75	.3360000E+00	.3354088E+00	.5911673E-03	.18	1
76	.3615000E+00	.3585843E+00	.2915725E-02	.81	1
77	.3844000E+00	.3843927E+00	.7269731E-05	.00	1
78	.4101000E+00	.4128669E+00	-.2769855E-02	-.67	1
79	.4384000E+00	.4438659E+00	-.5465866E-02	-1.23	1
80	.4719000E+00	.4772237E+00	-.5323656E-02	-1.12	1
81	.4802000E+00	.4841660E+00	-.3965950E-02	-.82	1
82	.4891000E+00	.4911960E+00	-.2096018E-02	-.43	1
83	.4979000E+00	.4983129E+00	-.4128596E-03	-.08	1
84	.5061000E+00	.5055155E+00	.5844953E-03	.12	1
85	.5132000E+00	.5128030E+00	.3969893E-03	.08	1
86	.3260000E+00	.3203566E+00	.5643407E-02	1.76	1
87	.3472000E+00	.3468618E+00	.3381711E-03	.10	1
88	.3727000E+00	.3719215E+00	.7784887E-03	.21	1
89	.3997000E+00	.3998429E+00	-.1428963E-03	-.04	1
90	.4267000E+00	.4306599E+00	-.3959867E-02	-.92	1
91	.4596000E+00	.4642084E+00	-.4608356E-02	-.99	1
92	.4670000E+00	.4712305E+00	-.4230485E-02	-.90	1
93	.4741000E+00	.4783537E+00	-.4253676E-02	-.89	1
94	.4822000E+00	.4855767E+00	-.3376674E-02	-.70	1
95	.4912000E+00	.4928983E+00	-.1698262E-02	-.34	1
96	.5012000E+00	.5003173E+00	.8827467E-03	.18	1
97	.3384000E+00	.3300093E+00	.8390706E-02	2.54	1
98	.3623000E+00	.3620844E+00	.2356109E-03	.07	1
99	.3900000E+00	.3893616E+00	.6384438E-03	.16	1
100	.4171000E+00	.4198710E+00	-.2770998E-02	-.66	1

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
101	.4491000E+00	.4535992E+00	-.4499236E-02	-.99	1
102	.4558000E+00	.4607145E+00	-.4914540E-02	-1.07	1
103	.4634000E+00	.4679492E+00	-.4549237E-02	-.97	1
104	.4712000E+00	.4753017E+00	-.4101727E-02	-.86	1
105	.4791000E+00	.4827704E+00	-.3670440E-02	-.76	1
106	.2671000E+00	.2680996E+00	-.9996364E-03	-.37	1
107	.2861000E+00	.2857454E+00	.3545784E-03	.12	1
108	.3049000E+00	.3022443E+00	.2655656E-02	.88	1
109	.3231000E+00	.3211734E+00	.1926649E-02	.60	1
110	.3416000E+00	.3423802E+00	-.7802220E-03	-.23	1
111	.3635000E+00	.3656782E+00	-.2178204E-02	-.60	1
112	.3889000E+00	.3909088E+00	-.2008800E-02	-.51	1
113	.4186000E+00	.4179412E+00	.6587662E-03	.16	1
114	.4238000E+00	.4235540E+00	.2459638E-03	.06	1
115	.4294000E+00	.4292337E+00	.1662776E-03	.04	1
116	.4352000E+00	.4349795E+00	.2204640E-03	.05	1
117	.4411000E+00	.4407907E+00	.3092550E-03	.07	1
118	.4473000E+00	.4466666E+00	.6333600E-03	.14	1
119	.2784000E+00	.2752754E+00	.3124612E-02	1.14	1
120	.3000000E+00	.2961530E+00	.3846974E-02	1.30	1
121	.3168000E+00	.3151228E+00	.1667161E-02	.53	1
122	.3363000E+00	.3367447E+00	-.4446762E-03	-.13	1
123	.3584000E+00	.3608657E+00	-.2465680E-02	-.68	1
124	.3838000E+00	.3873046E+00	-.3504590E-02	-.90	1
125	.4138000E+00	.4158928E+00	-.2092800E-02	-.50	1
126	.4205000E+00	.4218555E+00	-.1355489E-02	-.32	1
127	.4271000E+00	.4278974E+00	-.7974129E-03	-.19	1
128	.4338000E+00	.4340176E+00	-.2175935E-03	-.05	1
129	.4410000E+00	.4402151E+00	.7849138E-03	.18	1
130	.4488000E+00	.4464890E+00	.2311023E-02	.52	1
131	.2847000E+00	.2816290E+00	.3070959E-02	1.09	1
132	.3052000E+00	.3009065E+00	.4293463E-02	1.43	1
133	.3229000E+00	.3209258E+00	.1974183E-02	.62	1
134	.3432000E+00	.3436807E+00	-.4806569E-03	-.14	1
135	.3670000E+00	.3690545E+00	-.2054454E-02	-.56	1
136	.3943000E+00	.3968513E+00	-.2551329E-02	-.64	1
137	.4259000E+00	.4268969E+00	-.9968517E-03	-.23	1
138	.4327000E+00	.4331624E+00	-.4624326E-03	-.11	1
139	.4396000E+00	.4395110E+00	.8904020E-04	.02	1
140	.2903000E+00	.2860216E+00	.4278416E-02	1.50	1
141	.3126000E+00	.3103744E+00	.2225605E-02	.72	1
142	.3345000E+00	.3322779E+00	.2222086E-02	.67	1
143	.3575000E+00	.3571457E+00	.3543155E-03	.10	1
144	.3845000E+00	.3848593E+00	-.3593286E-03	-.09	1
145	.4153000E+00	.4152087E+00	.9131939E-04	.02	1
146	.4216000E+00	.4215777E+00	.2228313E-04	.01	1
147	.4283000E+00	.4280432E+00	.2568120E-03	.06	1
148	.3020000E+00	.2965857E+00	.5414329E-02	1.83	1
149	.3250000E+00	.3232571E+00	.1742889E-02	.54	1
150	.3496000E+00	.3473981E+00	.2201885E-02	.63	1

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
151	.3760000E+00	.3748539E+00	.1146058E-02	.31	1
152	.4065000E+00	.4054788E+00	.1021147E-02	.25	1
153	.4126000E+00	.4119628E+00	.6372136E-03	.15	1
154	.2520000E+00	.2513382E+00	.6618035E-03	.26	1
155	.2647000E+00	.2640747E+00	.6252796E-03	.24	1
156	.2782000E+00	.2782849E+00	-.8487451E-04	-.43	1
157	.2939000E+00	.2952835E+00	-.1383501E-02	-.47	1
158	.3116000E+00	.3147172E+00	-.3117174E-02	-.99	1
159	.3340000E+00	.3363248E+00	-.2324753E-02	-.69	1
160	.3577000E+00	.3599113E+00	-.2211335E-02	-.61	1
161	.3858000E+00	.3853255E+00	.4744667E-03	.12	1
162	.3908000E+00	.3908166E+00	-.1834327E-03	.05	1
163	.3962000E+00	.3959749E+00	.2250851E-03	.06	1
164	.4018000E+00	.4013997E+00	.5002513E-03	.12	1
165	.2585000E+00	.2570259E+00	.1474146E-02	.57	1
166	.2734000E+00	.2729942E+00	.4057689E-03	.15	1
167	.2897000E+00	.2896853E+00	.1472419E-04	.01	1
168	.3083000E+00	.3093667E+00	-.1066732E-02	-.34	1
169	.3298000E+00	.3317145E+00	-.1914538E-02	-.58	1
170	.3519000E+00	.3564630E+00	-.2563045E-02	-.72	1
171	.3822000E+00	.3834072E+00	-.1207241E-02	-.31	1
172	.3884000E+00	.3890447E+00	-.6447129E-03	-.17	1
173	.3948000E+00	.3947623E+00	.3769196E-04	.01	1
174	.2619000E+00	.2602097E+00	.1690327E-02	.65	1
175	.2783000E+00	.2774652E+00	.8348212E-03	.30	1
176	.2956000E+00	.2951957E+00	.4043102E-03	.14	1
177	.3160000E+00	.3160201E+00	-.2014964E-04	-.01	1
178	.3382000E+00	.3396207E+00	-.1420748E-02	-.42	1
179	.3633000E+00	.3657272E+00	-.1827220E-02	-.50	1
180	.3696000E+00	.3712298E+00	-.1629810E-02	-.44	1
181	.3754000E+00	.3768226E+00	-.1422613E-02	-.38	1
182	.3815000E+00	.3825042E+00	-.1004243E-02	-.26	1
183	.3878000E+00	.3882734E+00	-.4733728E-03	-.12	1
184	.2691000E+00	.2677160E+00	.1384011E-02	.52	1
185	.2887000E+00	.2871595E+00	.1540461E-02	.54	1
186	.3083000E+00	.3067743E+00	.1525710E-02	.50	1
187	.3304000E+00	.3297117E+00	.6883198E-03	.21	1
188	.3550000E+00	.3556521E+00	-.6521256E-03	-.18	1
189	.3605000E+00	.3611744E+00	-.6744023E-03	-.19	1
190	.3661000E+00	.3668033E+00	-.7032622E-03	-.19	1
191	.3719000E+00	.3725368E+00	-.6368360E-03	-.17	1
192	.3779000E+00	.3783733E+00	-.4733408E-03	-.13	1
193	.2821000E+00	.2821601E+00	-.6012924E-04	-.02	1
194	.3033000E+00	.3017344E+00	.1565572E-02	.52	1
195	.3236000E+00	.3235867E+00	.1333615E-04	.00	1
196	.3477000E+00	.3491121E+00	-.1412111E-02	-.40	1
197	.3529000E+00	.3546274E+00	-.1727388E-02	-.49	1
198	.3584000E+00	.3602728E+00	-.1872758E-02	-.52	1
199	.3641000E+00	.3660456E+00	-.1945600E-02	-.53	1
200	.3057000E+00	.3051117E+00	.5883270E-03	.19	2

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
201	.3284000E+00	.3254274E+00	.2972618E-02	.91	2
202	.3476000E+00	.3457866E+00	.1813409E-02	.52	2
203	.3715000E+00	.3722924E+00	-.7924230E-03	-.21	2
204	.3930000E+00	.3964179E+00	-.3417903E-02	-.86	2
205	.4240000E+00	.4268189E+00	-.2818932E-02	-.66	2
206	.4592000E+00	.4583143E+00	.8856783E-03	.19	2
207	.4919000E+00	.4929349E+00	-.1034939E-02	-.21	2
208	.5292000E+00	.5297915E+00	-.5915264E-03	-.11	2
209	.5419000E+00	.5374197E+00	.4480293E-02	.83	2
210	.5488000E+00	.5451313E+00	.3668683E-02	.67	2
211	.5498000E+00	.5529255E+00	-.3125476E-02	-.57	2
212	.3094000E+00	.3176729E+00	-.8272940E-02	-2.60	2
213	.3344000E+00	.3412205E+00	-.6820500E-02	-2.00	2
214	.3620000E+00	.3640606E+00	-.2060601E-02	-.57	2
215	.3920000E+00	.3905135E+00	.1486531E-02	.38	2
216	.4220000E+00	.4202889E+00	.1711124E-02	.41	2
217	.4503000E+00	.4530924E+00	-.2792430E-02	-.82	2
218	.4854000E+00	.4886838E+00	-.3283836E-02	-.67	2
219	.5325000E+00	.5268682E+00	.5631803E-02	1.07	2
220	.5439000E+00	.5448016E+00	-.9098413E-02	1.70	2
221	.5484000E+00	.5428310E+00	.6568962E-02	1.21	2
222	.5502000E+00	.5508554E+00	-.7554399E-03	-.14	2
223	.3174000E+00	.3234727E+00	-.6072717E-02	-1.88	2
224	.3465000E+00	.3483074E+00	-.2807407E-02	-.81	2
225	.3743000E+00	.3721870E+00	.2113027E-02	.57	2
226	.4040000E+00	.3987828E+00	.4217156E-02	1.05	2
227	.4350000E+00	.4338338E+00	.1066211E-02	.25	2
228	.4665000E+00	.4683801E+00	-.3380075E-02	-.72	2
229	.5026000E+00	.5020213E+00	.5787171E-03	.12	2
230	.5495000E+00	.5417568E+00	.7743174E-02	1.43	2
231	.5488000E+00	.5500113E+00	-.2112768E-03	-.04	2
232	.3364000E+00	.3351489E+00	.1251056E-02	.37	2
233	.3647000E+00	.3621717E+00	.2528322E-02	.70	2
234	.3935000E+00	.3879355E+00	.5564515E-02	1.43	2
235	.4180000E+00	.4150241E+00	.2975862E-02	.72	2
236	.4480000E+00	.4472720E+00	.7279531E-03	.16	2
237	.4892000E+00	.4877263E+00	.1473670E-02	.30	2
238	.4987000E+00	.4954468E+00	.3253158E-02	.66	2
239	.5068000E+00	.5032888E+00	.3511194E-02	.70	2
240	.5156000E+00	.5112505E+00	.4349539E-02	.85	2
241	.5257000E+00	.5193301E+00	.6369880E-02	1.23	2
242	.5361000E+00	.5275262E+00	.8573844E-02	1.63	2
243	.5332000E+00	.5312548E+00	.1945233E-02	.55	2
244	.3807000E+00	.3805961E+00	.1038701E-03	.03	2
245	.4070000E+00	.4085974E+00	-.1597421E-02	-.39	2
246	.4382000E+00	.4408943E+00	-.2694279E-02	-.61	2
247	.4759000E+00	.4771736E+00	-.1273593E-02	-.27	2
248	.4854000E+00	.4848763E+00	.5237318E-03	.11	2
249	.4939000E+00	.4927219E+00	.1178078E-02	.24	2
250	.5022000E+00	.5007082E+00	.1491799E-02	.30	2

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
251	.5103000E+00	.5088329E+00	.1467148E-02	.29	2
252	.5189000E+00	.5170937E+00	.1806290E-02	.35	2
253	.2848000E+00	.2892772E+00	-.4477158E-02	-1.55	2
254	.3048000E+00	.3073382E+00	-.2538170E-02	-.83	2
255	.3275000E+00	.3264518E+00	.1048235E-02	.32	2
256	.3474000E+00	.3472962E+00	.1037796E-03	.03	2
257	.3734000E+00	.3717081E+00	.1691890E-02	.46	2
258	.3985000E+00	.3986961E+00	-.1960830E-03	-.05	2
259	.4261000E+00	.4280451E+00	-.1945126E-02	-.45	2
260	.4579000E+00	.4611380E+00	-.3238002E-02	-.70	2
261	.4896000E+00	.4931731E+00	-.3573082E-02	-.72	2
262	.4965000E+00	.5001263E+00	-.3626334E-02	-.73	2
263	.2948000E+00	.3000683E+00	-.5268304E-02	-1.76	2
264	.3197000E+00	.3213612E+00	-.1661168E-02	-.52	2
265	.3445000E+00	.3422383E+00	.2261705E-02	.66	2
266	.3664000E+00	.3664829E+00	-.8293222E-04	-.02	2
267	.3913000E+00	.3938090E+00	-.2508962E-02	-.64	2
268	.4213000E+00	.4232759E+00	-.2037863E-02	-.52	2
269	.4521000E+00	.4566445E+00	-.4544520E-02	-1.00	2
270	.4912000E+00	.4917471E+00	-.5471497E-03	-.11	2
271	.4981000E+00	.4990416E+00	-.9415704E-03	-.19	2
272	.3015000E+00	.3050064E+00	-.3506421E-02	-1.15	2
273	.3269000E+00	.3275864E+00	-.6864143E-03	-.21	2
274	.3505000E+00	.3495030E+00	.9969936E-03	.29	2
275	.3736000E+00	.3744907E+00	-.1290655E-02	-.34	2
276	.4019000E+00	.4034695E+00	-.1569471E-02	-.39	2
277	.4310000E+00	.4349563E+00	-.3956337E-02	-.91	2
278	.4652000E+00	.4691203E+00	-.3920306E-02	-.84	2
279	.4732000E+00	.4762572E+00	-.3057235E-02	-.64	2
280	.4816000E+00	.4834923E+00	-.1892331E-02	-.39	2
281	.4901000E+00	.4908243E+00	-.7243208E-03	-.15	2
282	.3116000E+00	.3148607E+00	-.3260713E-02	-1.04	2
283	.3365000E+00	.3396288E+00	-.3128751E-02	-.92	2
284	.3633000E+00	.3634296E+00	-.1295833E-03	-.04	2
285	.3909000E+00	.3909302E+00	-.3016176E-04	-.01	2
286	.4195000E+00	.4218488E+00	-.2348825E-02	-.56	2
287	.4522000E+00	.4558882E+00	-.3688168E-02	-.81	2
288	.4597000E+00	.4630481E+00	-.3348088E-02	-.72	2
289	.4676000E+00	.4703212E+00	-.2721174E-02	-.58	2
290	.4760000E+00	.4777058E+00	-.1705775E-02	-.36	2
291	.3263000E+00	.3283021E+00	-.2002108E-02	-.61	2
292	.3533000E+00	.3553888E+00	-.2088774E-02	-.59	2
293	.3810000E+00	.3814271E+00	-.4270908E-03	-.11	2
294	.4100000E+00	.4115157E+00	-.1515726E-02	-.37	2
295	.4418000E+00	.4453457E+00	-.3545656E-02	-.80	2
296	.4490000E+00	.4525309E+00	-.3530909E-02	-.78	2
297	.4565000E+00	.4598503E+00	-.3350262E-02	-.73	2
298	.2613000E+00	.2640511E+00	-.2751075E-02	-1.04	2
299	.2780000E+00	.2774107E+00	.5893218E-03	.21	2
300	.2955000E+00	.2926731E+00	.2826853E-02	.97	2

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
301	.3128000E+00	.3110210E+00	.1778964E-02	.57	2
302	.3331000E+00	.3320458E+00	.1054169E-02	.32	2
303	.3547000E+00	.3554540E+00	-.7540126E-03	-.21	2
304	.3806000E+00	.3810286E+00	-.4286494E-03	-.11	2
305	.4117000E+00	.4086021E+00	.3097897E-02	.76	2
306	.4171000E+00	.4143444E+00	.2755628E-02	.67	2
307	.4230000E+00	.4201802E+00	.2839798E-02	.68	2
308	.4282000E+00	.4260487E+00	.2151318E-02	.74	2
309	.4356000E+00	.4320089E+00	.3591068E-02	.83	2
310	.2711000E+00	.2721815E+00	-.1081472E-02	-.40	2
311	.2892000E+00	.2887729E+00	.4270732E-03	.15	2
312	.3076000E+00	.3065163E+00	.1083714E-02	.35	2
313	.3278000E+00	.3275470E+00	.2529950E-03	.08	2
314	.3501000E+00	.3514859E+00	-.1385932E-02	-.39	2
315	.3763000E+00	.3780350E+00	-.1735043E-02	-.46	2
316	.4072000E+00	.4069673E+00	.2327067E-03	.06	2
317	.4139000E+00	.4130234E+00	.8766330E-03	.21	2
318	.4212000E+00	.4191683E+00	.2033709E-02	.49	2
319	.4284000E+00	.4253949E+00	.3005125E-02	.71	2
320	.2745000E+00	.2760137E+00	-.1513736E-02	-.55	2
321	.2956000E+00	.2938923E+00	.1707680E-02	.58	2
322	.3141000E+00	.3126751E+00	.1424854E-02	.46	2
323	.3351000E+00	.3348489E+00	.2511324E-03	.07	2
324	.3590000E+00	.3600405E+00	-.1040589E-02	-.29	2
325	.3874000E+00	.3879477E+00	-.5476637E-03	-.14	2
326	.3936000E+00	.3938335E+00	-.2334529E-03	-.06	2
327	.4000000E+00	.3998168E+00	.1832065E-03	.05	2
328	.4066000E+00	.4058962E+00	.7038372E-03	.17	2
329	.4135000E+00	.4120701E+00	.1429895E-02	.35	2
330	.4205000E+00	.4183372E+00	.2162773E-02	.52	2
331	.2825000E+00	.2838829E+00	-.1382890E-02	-.49	2
332	.3044000E+00	.3039455E+00	.4504813E-03	.15	2
333	.3265000E+00	.3246166E+00	.1883416E-02	.58	2
334	.3499000E+00	.3489032E+00	.9967638E-03	.29	2
335	.3773000E+00	.3764348E+00	.8651954E-03	.23	2
336	.3833000E+00	.3823013E+00	.9987428E-03	.26	2
337	.3895000E+00	.3882824E+00	.1217556E-02	.31	2
338	.3959000E+00	.3943763E+00	.1523689E-02	.39	2
339	.4026000E+00	.4005809E+00	.2019097E-02	.50	2
340	.4095000E+00	.4068944E+00	.2605644E-02	.64	2
341	.2929000E+00	.2950044E+00	-.2104440E-02	-.71	2
342	.3172000E+00	.3173897E+00	-.1896971E-03	-.06	2
343	.3424000E+00	.3402942E+00	.2105753E-02	.62	2
344	.3691000E+00	.3671690E+00	.1931044E-02	.53	2
345	.3750000E+00	.3729844E+00	.2015645E-02	.54	2
346	.3811000E+00	.3789392E+00	.2160842E-02	.57	2
347	.3873000E+00	.3850305E+00	.2269525E-02	.59	2
348	.3937000E+00	.3912556E+00	.2444443E-02	.62	2
349	.2456000E+00	.2474156E+00	-.1815591E-02	-.73	2
350	.2555000E+00	.2558178E+00	-.3177614E-03	-.12	2

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
351	.2705000E+00	.2690027E+00	.1497291E-02	.56	2
352	.2863000E+00	.2857400E+00	.5599717E-03	.20	2
353	.3042000E+00	.3053933E+00	-.1193293E-02	-.39	2
354	.3253000E+00	.3275810E+00	-.2281039E-02	-.70	2
355	.3506000E+00	.3520414E+00	-.1441393E-02	-.41	2
356	.3797000E+00	.3785801E+00	.1119880E-02	.30	2
357	.3849000E+00	.3841234E+00	.7766403E-03	.20	2
358	.3905000E+00	.3897425E+00	.7574718E-03	.19	2
359	.2521000E+00	.2540579E+00	-.1957893E-02	-.77	2
360	.2651000E+00	.2656919E+00	-.5919162E-03	-.22	2
361	.2819000E+00	.2813578E+00	.5422459E-03	.19	2
362	.3009000E+00	.3007779E+00	.1220965E-03	.04	2
363	.3228000E+00	.3233453E+00	-.5453017E-03	-.17	2
364	.3472000E+00	.3486740E+00	-.1473975E-02	-.42	2
365	.3761000E+00	.3764919E+00	-.3919435E-03	-.10	2
366	.3824000E+00	.3823354E+00	.6463978E-04	.02	2
367	.2557000E+00	.2576076E+00	-.1907594E-02	-.74	2
368	.2701000E+00	.2705287E+00	-.4287459E-03	-.16	2
369	.2881000E+00	.2872341E+00	.8659500E-03	.30	2
370	.3087000E+00	.3077972E+00	.9027974E-03	.29	2
371	.3323000E+00	.3316174E+00	.6826057E-03	.21	2
372	.3576000E+00	.3583040E+00	-.7040324E-03	-.20	2
373	.3634000E+00	.3639959E+00	-.5959079E-03	-.15	2
374	.3694000E+00	.3697165E+00	-.3164789E-03	-.09	2
375	.3756000E+00	.3755732E+00	.2680236E-04	.01	2
376	.2634000E+00	.2657033E+00	-.2303251E-02	-.87	2
377	.2807000E+00	.2808124E+00	-.1124475E-03	-.04	2
378	.3012000E+00	.2994020E+00	.1798009E-02	.60	2
379	.3238000E+00	.3220781E+00	.1721926E-02	.53	2
380	.3490000E+00	.3482381E+00	.7618876E-03	.22	2
381	.3545000E+00	.3538502E+00	.6497877E-03	.18	2
382	.3602000E+00	.3595825E+00	.6174594E-03	.17	2
383	.2737000E+00	.2785170E+00	-.4816974E-02	-1.73	2
384	.2967000E+00	.2959448E+00	.7552010E-03	.26	2
385	.3173000E+00	.3167718E+00	.5281724E-03	.17	2
386	.3419000E+00	.3420360E+00	-.1359672E-03	-.04	2
387	.3475000E+00	.3475617E+00	-.6173733E-04	-.02	2
388	.2936000E+00	.2919199E+00	.1680051E-02	.58	2
389	.3129000E+00	.3129549E+00	-.5486127E-04	-.02	2
390	.3347000E+00	.3339818E+00	.7182096E-03	.22	2
391	.3605000E+00	.3610242E+00	-.5242403E-03	-.15	2
392	.3864000E+00	.3862336E+00	.1664203E-03	.04	2
393	.4193000E+00	.4168359E+00	.2464089E-02	.59	2
394	.4488000E+00	.4500870E+00	-.1286974E-02	-.29	2
395	.4844000E+00	.4857972E+00	-.1397214E-02	-.29	2
396	.5174000E+00	.5238114E+00	-.6411430E-02	-1.22	2
397	.5285000E+00	.5316790E+00	-.3178963E-02	-.60	2
398	.5401000E+00	.5396325E+00	.4875295E-03	.09	2
399	.3018000E+00	.3054359E+00	-.3635860E-02	-1.19	2
400	.3281000E+00	.3297026E+00	-.1602625E-02	-.49	2

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
401	.3556000E+00	.3532104E+00	.2389556E-02	.68	2
402	.3846000E+00	.3804279E+00	.4172055E-02	1.10	2
403	.4131000E+00	.4110592E+00	.2040803E-02	.50	2
404	.4395000E+00	.4448025E+00	-.5302455E-02	-1.19	2
405	.4778000E+00	.4814111E+00	-.3611132E-02	-.75	2
406	.5189000E+00	.5206851E+00	-.1785117E-02	-.34	2
407	.5315000E+00	.5288447E+00	.2655282E-02	.50	2
408	.3108000E+00	.3116015E+00	-.8015191E-03	-.26	2
409	.3382000E+00	.3371554E+00	.1044587E-02	.31	2
410	.3666000E+00	.3617027E+00	.4897301E-02	1.35	2
411	.3954000E+00	.3900632E+00	.5336797E-02	1.37	2
412	.4210000E+00	.4203538E+00	.6462080E-03	.15	2
413	.4528000E+00	.4570485E+00	-.4248472E-02	-.93	2
414	.4953000E+00	.4951145E+00	.1855391E-03	.04	2
415	.5054000E+00	.5030646E+00	.2335352E-02	.46	2
416	.5147000E+00	.5111236E+00	.3576366E-02	.70	2
417	.5232000E+00	.5192900E+00	.3909981E-02	.75	2
418	.5332000E+00	.5275625E+00	.5637549E-02	1.07	2
419	.3263000E+00	.3238671E+00	.2432913E-02	.75	2
420	.3538000E+00	.3516090E+00	.2190974E-02	.62	2
421	.3820000E+00	.3780406E+00	.3959449E-02	1.05	2
422	.4092000E+00	.4085140E+00	.6860147E-03	.17	2
423	.4405000E+00	.4427379E+00	-.2237877E-02	-.51	2
424	.4796000E+00	.4803916E+00	-.7915782E-03	-.16	2
425	.4892000E+00	.4883095E+00	.8904793E-03	.18	2
426	.4992000E+00	.4963520E+00	.2848032E-02	.57	2
427	.5081000E+00	.5045171E+00	.3582880E-02	.71	2
428	.5176000E+00	.5128032E+00	.4796756E-02	.94	2
429	.3393000E+00	.3405304E+00	-.1230373E-02	-.36	2
430	.3693000E+00	.3705906E+00	-.1290940E-02	-.35	2
431	.3970000E+00	.3992600E+00	-.4400498E-03	.11	2
432	.4302000E+00	.4323214E+00	-.2121441E-02	-.49	2
433	.4671000E+00	.4694566E+00	-.2356600E-02	-.50	2
434	.4761000E+00	.4773407E+00	-.1240725E-02	-.26	2
435	.4856000E+00	.4853711E+00	.2288744E-03	.05	2
436	.2747000E+00	.2765263E+00	-.1826277E-02	-.66	2
437	.2919000E+00	.2959215E+00	-.4021522E-02	-1.36	2
438	.3168000E+00	.3149259E+00	.1874144E-02	.60	2
439	.3400000E+00	.3369921E+00	.3007897E-02	.89	2
440	.3632000E+00	.3618609E+00	.1339085E-02	.37	2
441	.3879000E+00	.3884625E+00	-.5624882E-03	-.14	2
442	.4187000E+00	.4190426E+00	-.3425738E-03	-.08	2
443	.4523000E+00	.4509855E+00	.1314489E-02	.29	2
444	.4580000E+00	.4576233E+00	.3767313E-03	.08	2
445	.4641000E+00	.4643417E+00	-.2417353E-03	-.05	2
446	.4704000E+00	.4711400E+00	-.7399729E-03	-.16	2
447	.4770000E+00	.4780171E+00	-.1017075E-02	-.21	2
448	.4838000E+00	.4849722E+00	-.1172165E-02	-.24	2
449	.2884000E+00	.2882721E+00	.1279333E-03	.04	2
450	.3109000E+00	.3108992E+00	.8353103E-06	.00	2

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
451	.3341000E+00	.3323844E+00	.1715610E-02	.52	2
452	.3559000E+00	.3571335E+00	-.1233466E-02	-.35	2
453	.3820000E+00	.3849164E+00	-.2916411E-02	-.76	2
454	.4123000E+00	.4154757E+00	-.3175706E-02	-.76	2
455	.4452000E+00	.4485966E+00	-.3396612E-02	-.76	2
456	.4526000E+00	.4555121E+00	-.2912132E-02	-.64	2
457	.4601000E+00	.4625217E+00	-.2421740E-02	-.52	2
458	.4685000E+00	.4696242E+00	-.1124236E-02	-.24	2
459	.4770000E+00	.4768185E+00	.1815401E-03	.04	2
460	.4855000E+00	.4841033E+00	.1396707E-02	.29	2
461	.2942000E+00	.2935761E+00	.6239339E-03	.21	2
462	.3178000E+00	.3174903E+00	.3097073E-03	.10	2
463	.3399000E+00	.3400150E+00	-.1149839E-03	-.03	2
464	.3645000E+00	.3659071E+00	-.1407063E-02	-.38	2
465	.3923000E+00	.3949428E+00	-.2642802E-02	-.67	2
466	.4233000E+00	.4268601E+00	-.3560062E-02	-.83	2
467	.4587000E+00	.4614383E+00	-.2738280E-02	-.59	2
468	.4668000E+00	.4685567E+00	-.1856692E-02	-.40	2
469	.4754000E+00	.4759729E+00	-.5729041E-03	-.12	2
470	.3026000E+00	.3040197E+00	-.1419699E-02	-.47	2
471	.3287000E+00	.3301220E+00	-.1421971E-02	-.43	2
472	.3546000E+00	.3545309E+00	.6909822E-04	.02	2
473	.3817000E+00	.3825359E+00	-.8359115E-03	-.22	2
474	.4125000E+00	.4139115E+00	-.1411496E-02	-.34	2
475	.4456000E+00	.4483812E+00	-.2781234E-02	-.62	2
476	.4522000E+00	.4556251E+00	-.2425061E-02	-.53	2
477	.3163000E+00	.3180186E+00	-.1718556E-02	-.54	2
478	.3437000E+00	.3464395E+00	-.2739456E-02	-.79	2
479	.3730000E+00	.3730859E+00	-.8587188E-04	-.02	2
480	.4032000E+00	.4036789E+00	-.4789383E-03	-.12	2
481	.4091000E+00	.4102511E+00	-.1151099E-02	-.28	2
482	.4152000E+00	.4169684E+00	-.1768275E-02	-.42	2
483	.4216000E+00	.4238282E+00	-.2228218E-02	-.53	2
484	.4281000E+00	.4308282E+00	-.2728154E-02	-.63	2
485	.4351000E+00	.4379658E+00	-.2865790E-02	-.65	2
486	.2542000E+00	.2521819E+00	.2018119E-02	.80	2
487	.2690000E+00	.2675580E+00	.1442038E-02	.54	2
488	.2848000E+00	.2834509E+00	.1349072E-02	.48	2
489	.3036000E+00	.3021429E+00	.1457064E-02	.48	2
490	.3241000E+00	.3233409E+00	.7591154E-03	.23	2
491	.3464000E+00	.3467988E+00	-.3988061E-03	-.11	2
492	.3727000E+00	.3722256E+00	.3744470E-03	.10	2
493	.4046000E+00	.3997696E+00	.4830380E-02	1.21	2
494	.4104000E+00	.4054773E+00	.4922734E-02	1.21	2
495	.4166000E+00	.4112557E+00	.5344266E-02	1.30	2
496	.4232000E+00	.4171042E+00	.6095818E-02	1.46	2
497	.2623000E+00	.2612659E+00	.1033079E-02	.40	2
498	.2795000E+00	.2787485E+00	.7485522E-03	.13	2
499	.2983000E+00	.2982487E+00	.5128896E-04	.02	2
500	.3197000E+00	.3196235E+00	.7645118E-04	.02	2

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
501	.3423000E+00	.3437356E+00	-.1435631E-02	-.42	2
502	.3687000E+00	.3703345E+00	-.1634480E-02	-.44	2
503	.4006000E+00	.3992188E+00	.1381159E-02	.35	2
504	.4078000E+00	.4052551E+00	.2544852E-02	.63	2
505	.4152000E+00	.4113752E+00	.3824839E-02	.93	2
506	.2667000E+00	.2654651E+00	.1234933E-02	.47	2
507	.2846000E+00	.2853601E+00	-.7601303E-03	-.27	2
508	.3053000E+00	.3047735E+00	.5265476E-03	.17	2
509	.3274000E+00	.3272913E+00	.1087066E-03	.03	2
510	.3515000E+00	.3526562E+00	-.1156169E-02	-.33	2
511	.3802000E+00	.3806130E+00	-.4129832E-03	-.11	2
512	.3865000E+00	.3864964E+00	.3610129E-05	.00	2
513	.3931000E+00	.3924736E+00	.6263806E-03	.16	2
514	.4000000E+00	.3985433E+00	.1456715E-02	.37	2
515	.2754000E+00	.2739236E+00	.1476438E-02	.54	2
516	.2953000E+00	.2960067E+00	-.7066700E-03	-.24	2
517	.3191000E+00	.3173042E+00	.1795768E-02	.57	2
518	.3429000E+00	.3419350E+00	.9649971E-03	.28	2
519	.3704000E+00	.3696397E+00	.7602748E-03	.21	2
520	.3764000E+00	.3755250E+00	.8750250E-03	.23	2
521	.3826000E+00	.3815203E+00	.1079674E-02	.28	2
522	.3891000E+00	.3876239E+00	.1476056E-02	.38	2
523	.2868000E+00	.2856026E+00	.1197425E-02	.42	2
524	.3096000E+00	.3100043E+00	-.4043110E-03	-.13	2
525	.3356000E+00	.3335394E+00	.2060642E-02	.62	2
526	.3629000E+00	.3607582E+00	.2141815E-02	.59	2
527	.3688000E+00	.3666199E+00	.2180121E-02	.59	2
528	.2363000E+00	.2364281E+00	-.1280822E-03	-.05	2
529	.2471000E+00	.2467986E+00	.3014390E-03	.12	2
530	.2622000E+00	.2608253E+00	.1374749E-02	.53	2
531	.2788000E+00	.2782265E+00	.5734989E-03	.21	2
532	.2973000E+00	.2984546E+00	-.1154589E-02	-.39	2
533	.3187000E+00	.3211620E+00	-.2462040E-02	-.77	2
534	.3438000E+00	.3461042E+00	-.2304237E-02	-.67	2
535	.3733000E+00	.3730971E+00	.2029154E-03	.05	2
536	.3787000E+00	.3787284E+00	-.2844058E-04	-.01	2
537	.2439000E+00	.2440250E+00	-.1250283E-03	-.05	2
538	.2572000E+00	.2576274E+00	-.4273600E-03	-.17	2
539	.2743000E+00	.2741349E+00	.1650593E-03	.06	2
540	.2939000E+00	.2942190E+00	-.3190203E-03	-.11	2
541	.3165000E+00	.3173612E+00	-.8612411E-03	-.27	2
542	.3410000E+00	.3432096E+00	-.2209620E-02	-.64	2
543	.3464000E+00	.3486804E+00	-.2280399E-02	-.65	2
544	.3519000E+00	.3542473E+00	-.2347349E-02	-.66	2
545	.3577000E+00	.3599089E+00	-.2208851E-02	-.61	2
546	.3638000E+00	.3656634E+00	-.1863367E-02	-.51	2
547	.2479000E+00	.2479406E+00	-.4061121E-04	-.02	2
548	.2625000E+00	.2628301E+00	-.3300716E-03	-.13	2
549	.2809000E+00	.2803771E+00	.5228814E-03	.19	2
550	.3018000E+00	.3016042E+00	.1957986E-03	.06	2

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
551	.3254000E+00	.3259992E+00	-.5992156E-03	-.18	2
552	.3517000E+00	.3532056E+00	-.1505560E-02	-.43	2
553	.3575000E+00	.3589600E+00	-.1460037E-02	-.41	2
554	.2564000E+00	.2566256E+00	-.2256091E-03	-.09	2
555	.2736000E+00	.2737031E+00	-.1031141E-03	-.04	2
556	.2943000E+00	.2931344E+00	.1165599E-02	.40	2
557	.3178000E+00	.3164744E+00	.1325586E-02	.42	2
558	.3227000E+00	.3215634E+00	.1136570E-02	.35	2
559	.3278000E+00	.3267844E+00	.1015562E-02	.31	2
560	.3328000E+00	.3321343E+00	.6656722E-03	.20	2
561	.3379000E+00	.3376102E+00	.2898149E-03	.09	2
562	.3432000E+00	.3432093E+00	-.9274628E-05	-.00	2
563	.2675000E+00	.2699968E+00	-.2496795E-02	-.92	2
564	.2875000E+00	.2893299E+00	-.1892928E-02	-.65	2
565	.3115000E+00	.3110617E+00	.4383003E-03	.14	2
566	.3162000E+00	.3159261E+00	.2739455E-03	.09	2
567	.3211000E+00	.3209555E+00	.1444602E-03	.05	2
568	.3260000E+00	.3261455E+00	-.1455122E-03	-.04	2
569	.3156000E+00	.3117134E+00	.3886617E-02	1.25	1
570	.3465000E+00	.3450775E+00	.1422493E-02	.41	1
571	.3750000E+00	.3676201E+00	.7379875E-02	2.01	1
572	.3965000E+00	.3900449E+00	.6455076E-02	1.65	1
573	.4116000E+00	.4159050E+00	-.4304969E-02	-1.04	1
574	.4374000E+00	.4435673E+00	-.6167266E-02	-1.39	1
575	.4734000E+00	.4729827E+00	.4173426E-03	.09	1
576	.5211000E+00	.5040832E+00	.1701679E-01	3.38	1
577	.5474000E+00	.5367997E+00	.1060033E-01	1.97	1
578	.5496000E+00	.5435310E+00	.6068982E-02	1.12	1
579	.5502000E+00	.5503239E+00	-.1238736E-03	-.02	1
580	.5505000E+00	.5571777E+00	-.6677743E-02	-1.20	1
581	.5543000E+00	.5640921E+00	-.9792145E-02	-1.74	1
582	.5598000E+00	.5710665E+00	-.1126661E-01	-1.97	1
583	.3165000E+00	.3223654E+00	-.5865361E-02	-1.82	1
584	.3504000E+00	.3570798E+00	-.6679838E-02	-1.87	1
585	.3818000E+00	.3823184E+00	-.5183993E-03	-.14	1
586	.4050000E+00	.4090925E+00	-.4092476E-02	-1.00	1
587	.4356000E+00	.4378667E+00	-.2266653E-02	-.52	1
588	.4701000E+00	.4686699E+00	.1430121E-02	.31	1
589	.5100000E+00	.5014429E+00	.8557116E-02	1.71	1
590	.5482000E+00	.5361072E+00	.1209282E-01	2.26	1
591	.5495000E+00	.5432600E+00	.6240030E-02	1.15	1
592	.5500000E+00	.5504846E+00	-.4846134E-03	-.09	1
593	.5507000E+00	.5577805E+00	-.7080510E-02	-1.27	1
594	.5555000E+00	.5651471E+00	-.9647064E-02	-1.71	1
595	.5611000E+00	.5725837E+00	-.1148369E-01	-2.01	1
596	.3200000E+00	.3274334E+00	-.7433375E-02	-2.27	1
597	.3545000E+00	.3634350E+00	-.8934980E-02	-2.46	1
598	.3882000E+00	.3897130E+00	-.1513008E-02	-.39	1
599	.4170000E+00	.4176301E+00	-.6300875E-03	-.15	1
600	.4487000E+00	.4476571E+00	.1042941E-02	.23	1

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
601	.4808000E+00	.4798182E+00	.9817511E-03	.20	1
602	.5217000E+00	.5140486E+00	.7651434E-02	1.49	1
603	.5500000E+00	.5502640E+00	-.2640495E-03	-.05	1
604	.5509000E+00	.5577379E+00	-.6837896E-02	-1.23	1
605	.5566000E+00	.5652871E+00	-.8687123E-02	-1.54	1
606	.5629000E+00	.5729111E+00	-.1001109E-01	-1.75	1
607	.3346000E+00	.3379309E+00	-.3330920E-02	-.99	1
608	.3707000E+00	.3761206E+00	-.5420570E-02	-1.44	1
609	.4078000E+00	.4042828E+00	.3517162E-02	.87	1
610	.4378000E+00	.4343128E+00	.3487153E-02	.80	1
611	.4672000E+00	.4666797E+00	.5203350E-03	.11	1
612	.5026000E+00	.5013933E+00	.1206667E-02	.24	1
613	.5488000E+00	.5383748E+00	.1042524E-01	1.94	1
614	.5489000E+00	.5460347E+00	.2865267E-02	.52	1
615	.5507000E+00	.5537808E+00	-.3080784E-02	-.56	1
616	.5547000E+00	.5616121E+00	-.6912145E-02	-1.23	1
617	.5608000E+00	.5695281E+00	-.8728055E-02	-1.53	1
618	.3455000E+00	.3529218E+00	-.7421817E-02	-2.10	1
619	.3857000E+00	.3934301E+00	-.7730096E-02	-1.96	1
620	.4254000E+00	.4238298E+00	.1570151E-02	.37	1
621	.4555000E+00	.4532281E+00	.2271932E-02	.50	1
622	.4925000E+00	.4917260E+00	.7740002E-03	.16	1
623	.5342000E+00	.5296458E+00	.4554213E-02	.86	1
624	.5438000E+00	.5375381E+00	.6261853E-02	1.16	1
625	.5494000E+00	.5455312E+00	.3868825E-02	.71	1
626	.5501000E+00	.5536239E+00	-.3523935E-02	-.64	1
627	.2925000E+00	.2957529E+00	-.3252913E-02	-1.10	1
628	.3190000E+00	.3237508E+00	-.4750782E-02	-1.47	1
629	.3473000E+00	.3446647E+00	.2635282E-02	.76	1
630	.3665000E+00	.3645825E+00	.1917467E-02	.53	1
631	.3885000E+00	.3912767E+00	-.2776652E-02	-.71	1
632	.4140000E+00	.4185651E+00	-.4565077E-02	-1.09	1
633	.4415000E+00	.4450196E+00	-.3519600E-02	-.79	1
634	.4721000E+00	.4744096E+00	-.2309572E-02	-.49	1
635	.5066000E+00	.5053786E+00	.1221406E-02	.24	1
636	.5159000E+00	.5117558E+00	.4144229E-02	.81	1
637	.5240000E+00	.5181929E+00	.5807149E-02	1.12	1
638	.5315000E+00	.5246693E+00	.6810670E-02	1.30	1
639	.5385000E+00	.5312447E+00	.7255285E-02	1.37	1
640	.3005000E+00	.3046348E+00	-.4134770E-02	-1.36	1
641	.3310000E+00	.3358645E+00	-.4864492E-02	-1.45	1
642	.3601000E+00	.3592593E+00	.8406809E-03	.23	1
643	.3867000E+00	.3849445E+00	.1754473E-02	.61	1
644	.4112000E+00	.4114682E+00	-.2582159E-03	-.07	1
645	.4354000E+00	.4406154E+00	-.5215408E-02	-1.18	1
646	.4665000E+00	.4717097E+00	-.5209706E-02	-1.10	1
647	.5085000E+00	.5046634E+00	.3936579E-02	.78	1
648	.5182000E+00	.5114698E+00	.6730220E-02	1.32	1
649	.5259000E+00	.5183465E+00	.7553510E-02	1.46	1
650	.5328000E+00	.5252929E+00	.7507079E-02	1.43	1

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
651	.5402000E+00	.5323085E+00	.7891542E-02	1.48	1
652	.3082000E+00	.3088411E+00	-.6411234E-03	-.21	1
653	.3393000E+00	.3413580E+00	-.2057974E-02	-.60	1
654	.3693000E+00	.3657923E+00	.4107732E-02	1.12	1
655	.3859000E+00	.3920215E+00	-.3878471E-02	-.99	1
656	.4176000E+00	.4203970E+00	-.2796961E-02	-.67	1
657	.4460000E+00	.4509021E+00	-.4902118E-02	-1.09	1
658	.4797000E+00	.4843437E+00	-.3753728E-02	-.78	1
659	.5273000E+00	.5179586E+00	.9341374E-02	1.80	1
660	.5343000E+00	.5250860E+00	.9213954E-02	1.75	1
661	.3172000E+00	.3175167E+00	-.3167340E-03	-.10	1
662	.3511000E+00	.3522216E+00	-.1121630E-02	-.32	1
663	.3832000E+00	.3785402E+00	.4659837E-02	1.23	1
664	.4074000E+00	.4068824E+00	.5176460E-03	.13	1
665	.4343000E+00	.4375976E+00	-.3297633E-02	-.75	1
666	.4667000E+00	.4706553E+00	-.3955267E-02	-.84	1
667	.5107000E+00	.5059580E+00	.4742015E-02	.94	1
668	.5196000E+00	.5132786E+00	.6321404E-02	1.23	1
669	.5286000E+00	.5206839E+00	.7916053E-02	1.52	1
670	.3270000E+00	.3298432E+00	-.2843203E-02	-.86	1
671	.3621000E+00	.3668667E+00	-.4766727E-02	-1.30	1
672	.3975000E+00	.3954227E+00	.2077255E-02	.53	1
673	.4247000E+00	.4263530E+00	-.1652993E-02	-.39	1
674	.4562000E+00	.4599795E+00	-.3779539E-02	-.82	1
675	.4940000E+00	.4962433E+00	-.2243293E-02	-.45	1
676	.5029000E+00	.5038021E+00	-.9021059E-03	-.18	1
677	.2648000E+00	.2702749E+00	-.5474920E-02	-2.03	1
678	.2898000E+00	.2922069E+00	-.2406888E-02	-.82	1
679	.3133000E+00	.3099423E+00	.3357736E-02	1.08	1
680	.3333000E+00	.3294524E+00	.3847610E-02	1.17	1
681	.3508000E+00	.3508413E+00	-.4133619E-04	-.01	1
682	.3722000E+00	.3740291E+00	-.1829118E-02	-.49	1
683	.3964000E+00	.3989157E+00	-.2515674E-02	-.63	1
684	.4242000E+00	.4254071E+00	-.1207088E-02	-.28	1
685	.4510000E+00	.4534199E+00	-.2419898E-02	-.53	1
686	.4574000E+00	.4591844E+00	-.1798408E-02	-.39	1
687	.2750000E+00	.2764960E+00	-.1496028E-02	-.54	1
688	.3019000E+00	.3016598E+00	.2401513E-03	.08	1
689	.3259000E+00	.3218761E+00	.4023885E-02	1.25	1
690	.3449000E+00	.3440691E+00	.8309294E-03	.24	1
691	.3667000E+00	.3683722E+00	-.1672150E-02	-.45	1
692	.3915000E+00	.3947009E+00	-.3200860E-02	-.81	1
693	.4201000E+00	.4229450E+00	-.2845030E-02	-.67	1
694	.4525000E+00	.4530002E+00	-.5001871E-03	-.11	1
695	.4589000E+00	.4592201E+00	-.3201264E-03	-.07	1
696	.2783000E+00	.2795965E+00	-.1296528E-02	-.46	1
697	.3054000E+00	.3060475E+00	-.6474779E-03	-.21	1
698	.3312000E+00	.3273032E+00	.3896789E-02	1.19	1
699	.3517000E+00	.3506392E+00	.1060831E-02	.30	1
700	.3749000E+00	.3761950E+00	-.1295042E-02	-.34	1

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
701	.4014000E+00	.4038817E+00	-.2481717E-02	-.61	1
702	.4317000E+00	.4335832E+00	-.1883200E-02	-.43	1
703	.4380000E+00	.4397554E+00	-.1755396E-02	-.40	1
704	.4446000E+00	.4460029E+00	-.1402923E-02	-.31	1
705	.4517000E+00	.4523250E+00	-.6249753E-03	-.14	1
706	.2865000E+00	.2862870E+00	.2129995E-03	.07	1
707	.3150000E+00	.3149260E+00	.7400523E-04	.02	1
708	.3425000E+00	.3380660E+00	.4434032E-02	1.31	1
709	.3654000E+00	.3635149E+00	.1885144E-02	.52	1
710	.3914000E+00	.3914106E+00	-.1057574E-04	-.00	1
711	.4209000E+00	.4216497E+00	-.7497280E-03	-.18	1
712	.4274000E+00	.4279673E+00	-.5672624E-03	-.13	1
713	.4339000E+00	.4343723E+00	-.4722798E-03	-.11	1
714	.4405000E+00	.4408638E+00	-.3637783E-03	-.08	1
715	.2987000E+00	.2962936E+00	.2406375E-02	.81	1
716	.3299000E+00	.3272512E+00	.2648752E-02	.81	1
717	.3571000E+00	.3526287E+00	.4471295E-02	1.27	1
718	.3831000E+00	.3806657E+00	.2434349E-02	.64	1
719	.4118000E+00	.4114726E+00	.3273626E-03	.08	1
720	.4178000E+00	.4179556E+00	-.1555999E-03	-.04	1
721	.4240000E+00	.4245429E+00	-.5428603E-03	-.13	1
722	.4307000E+00	.4312332E+00	-.5331605E-03	-.12	1
723	.2515000E+00	.2533875E+00	-.1887525E-02	-.74	1
724	.2724000E+00	.2704584E+00	.1941597E-02	.72	1
725	.2867000E+00	.2856938E+00	.1006236E-02	.35	1
726	.3021000E+00	.3029537E+00	-.8536977E-03	-.28	1
727	.3212000E+00	.3221678E+00	-.9677770E-03	-.30	1
728	.3417000E+00	.3431952E+00	-.1495190E-02	-.44	1
729	.3645000E+00	.3659080E+00	-.1408000E-02	-.38	1
730	.3915000E+00	.3901977E+00	.1302330E-02	.33	1
731	.3965000E+00	.3952365E+00	.1263502E-02	.32	1
732	.4015000E+00	.4003340E+00	.1165975E-02	.29	1
733	.4069000E+00	.4054896E+00	.1410393E-02	.35	1
734	.4125000E+00	.4107026E+00	.1797377E-02	.44	1
735	.4184000E+00	.4159725E+00	.2427534E-02	.58	1
736	.2572000E+00	.2581205E+00	-.9205389E-03	-.36	1
737	.2799000E+00	.2784233E+00	.1476731E-02	.53	1
738	.2977000E+00	.2961395E+00	.1560479E-02	.53	1
739	.3163000E+00	.3160823E+00	.2177154E-03	.07	1
740	.3372000E+00	.3382105E+00	-.1010497E-02	-.30	1
741	.3606000E+00	.3623788E+00	-.1778838E-02	-.49	1
742	.3880000E+00	.3884493E+00	-.4492621E-03	-.12	1
743	.3940000E+00	.3938808E+00	.1192113E-03	.03	1
744	.4002000E+00	.3993827E+00	.8172842E-03	.20	1
745	.4066000E+00	.4049542E+00	.1645792E-02	.41	1
746	.4131000E+00	.4105945E+00	.2505544E-02	.61	1
747	.2604000E+00	.2609385E+00	-.5384759E-03	-.21	1
748	.2838000E+00	.2825283E+00	.1271665E-02	.45	1
749	.3036000E+00	.3012841E+00	.2315947E-02	.77	1
750	.3233000E+00	.3223698E+00	.9301802E-03	.29	1

# NADC-77036-30

FRIDAY, JUL 2, 1976

## TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
751	.3451000E+00	.3457508E+00	-.6508259E-03	-.19	1
752	.3704000E+00	.3712771E+00	-.8771317E-03	-.24	1
753	.3998000E+00	.3988049E+00	.9951317E-03	.25	1
754	.4062000E+00	.4045393E+00	.1660713E-02	.41	1
755	.2669000E+00	.2678555E+00	-.9554510E-03	-.36	1
756	.2922000E+00	.2916334E+00	.5666454E-03	.19	1
757	.3157000E+00	.3122733E+00	.3426688E-02	1.10	1
758	.3369000E+00	.3354720E+00	.1427991E-02	.43	1
759	.3613000E+00	.3611929E+00	.1071378E-03	.03	1
760	.3897000E+00	.3892716E+00	.4283546E-03	.11	1
761	.3958000E+00	.3951561E+00	.6439028E-03	.16	1
762	.2765000E+00	.2795542E+00	-.3054249E-02	-1.09	1
763	.3034000E+00	.3056508E+00	-.2250781E-02	-.74	1
764	.3299000E+00	.3285282E+00	.1371777E-02	.42	1
765	.3538000E+00	.3543150E+00	-.5149773E-03	-.15	1
766	.3595000E+00	.3598198E+00	-.3197625E-03	-.09	1
767	.3647000E+00	.3654370E+00	-.7369711E-03	-.20	1
768	.3701000E+00	.3711650E+00	-.1065000E-02	-.29	1
769	.3757000E+00	.3770022E+00	-.1302240E-02	-.35	1
770	.3814000E+00	.3829471E+00	-.1547097E-02	-.40	1

FRIDAY, JUL 2, 1976

## MAXIMUM RESIDUAL (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
576	.5211000E+00	.5040832E+00	.1701679E-01	3.38	1

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
1	.3265000E+00	.3115843E+00	.1491571E-01	4.79
2	.3436000E+00	.3346296E+00	.8970352E-02	2.68
3	.3605000E+00	.3572679E+00	.3232067E-02	.90
4	.3802000E+00	.3801138E+00	.8619309E-04	.02
5	.4021000E+00	.4064744E+00	-.4374432E-02	-1.08
6	.4315000E+00	.4351379E+00	-.3637855E-02	-.84
7	.4661000E+00	.4659642E+00	.1357892E-03	.03
8	.5010000E+00	.4988272E+00	.2172758E-02	.44
9	.5415000E+00	.5336168E+00	.7883199E-02	1.48
10	.5491000E+00	.5407972E+00	.8302759E-02	1.54
11	.5504000E+00	.5480502E+00	.2349831E-02	.43
12	.5501000E+00	.5553749E+00	-.5274898E-02	-.95
13	.5536000E+00	.5627708E+00	-.9170762E-02	-1.63
14	.3298000E+00	.3203332E+00	.9466757E-02	2.96
15	.3458000E+00	.3494603E+00	-.3660280E-02	-1.05
16	.3704000E+00	.3734996E+00	-.3095570E-02	-.83
17	.3989000E+00	.4001141E+00	-.1214110E-02	-.30
18	.4296000E+00	.4293907E+00	.2092792E-03	.05
19	.4608000E+00	.4611965E+00	-.3965211E-03	-.09
20	.4952000E+00	.4953816E+00	-.1816360E-03	-.04
21	.5440000E+00	.5318093E+00	.1219069E-01	2.29
22	.5491000E+00	.5393531E+00	.9746882E-02	1.81
23	.5499000E+00	.5469809E+00	.2919102E-02	.53
24	.5499000E+00	.5546918E+00	-.4791795E-02	-.86
25	.5549000E+00	.5624850E+00	-.7584975E-02	-1.35
26	.3320000E+00	.3257624E+00	.6237646E-02	1.91
27	.3515000E+00	.3533257E+00	-.1825674E-02	-.52
28	.3814000E+00	.3812588E+00	.1411544E-03	.04
29	.4114000E+00	.4090162E+00	.2383811E-02	.58
30	.4406000E+00	.4395450E+00	.1055042E-02	.24
31	.4730000E+00	.4722981E+00	.7019189E-03	.15
32	.5128000E+00	.5083489E+00	.4451067E-02	.88
33	.5499000E+00	.5463263E+00	.3573696E-02	.65
34	.5510000E+00	.5541908E+00	-.3190846E-02	-.58
35	.5561000E+00	.5621429E+00	-.6042877E-02	-1.07
36	.3453000E+00	.3368458E+00	.8454194E-02	2.51
37	.3728000E+00	.3694550E+00	.3345022E-02	.91
38	.4011000E+00	.3964171E+00	.4682883E-02	1.18
39	.4282000E+00	.4262844E+00	.1915621E-02	.45
40	.4568000E+00	.4591488E+00	-.2348786E-02	-.51
41	.4941000E+00	.4948589E+00	-.7588824E-03	-.15
42	.5441000E+00	.5332452E+00	.1085484E-01	2.04
43	.5490000E+00	.5412296E+00	.7770359E-02	1.44
44	.5501000E+00	.5493138E+00	.8862113E-03	.18
45	.3618000E+00	.3524002E+00	.9399819E-02	2.67
46	.3895000E+00	.3876612E+00	.1838837E-02	.47
47	.4200000E+00	.4190978E+00	.9022477E-03	.22
48	.4440000E+00	.4437276E+00	.2724296E-03	.06
49	.4850000E+00	.4847345E+00	.2655433E-03	.05
50	.5252000E+00	.5236379E+00	.1562059E-02	.30

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
51	.5353000E+00	.5317780E+00	.3521954E-02	.66
52	.2986000E+00	.2928315E+00	.5768513E-02	1.97
53	.3170000E+00	.3158508E+00	.1149248E-02	.36
54	.3345000E+00	.3355070E+00	-.1007039E-02	-.30
55	.3545000E+00	.3555713E+00	-.1071294E-02	-.30
56	.3818000E+00	.3818115E+00	-.1145991E-04	-.00
57	.4091000E+00	.4083175E+00	.7825483E-03	.19
58	.4375000E+00	.4379268E+00	-.4268027E-03	-.10
59	.4667000E+00	.4673471E+00	-.6471156E-03	-.14
60	.4960000E+00	.4996393E+00	-.3639332E-02	-.73
61	.5029000E+00	.5063073E+00	-.3407324E-02	-.67
62	.5100000E+00	.5130435E+00	-.3043542E-02	-.59
63	.5183000E+00	.5198473E+00	-.1547327E-02	-.30
64	.3036000E+00	.3026538E+00	.9462102E-03	.31
65	.3272000E+00	.3289143E+00	-.1714253E-02	-.52
66	.3527000E+00	.3510549E+00	.1645062E-02	.47
67	.3778000E+00	.3757274E+00	.2072551E-02	.55
68	.4018000E+00	.4029806E+00	-.1160618E-02	-.29
69	.4279000E+00	.4326090E+00	-.4708987E-02	-1.09
70	.4579000E+00	.4645211E+00	-.6621088E-02	-1.43
71	.4978000E+00	.4985621E+00	-.7620561E-03	-.15
72	.5044000E+00	.5056151E+00	-.1215137E-02	-.24
73	.5117000E+00	.5127478E+00	-.1047793E-02	-.20
74	.3128000E+00	.3072220E+00	.5578026E-02	1.82
75	.3660000E+00	.3347275E+00	.3227532E-02	.37
76	.3615000E+00	.3579533E+00	.3546714E-02	.99
77	.3844000E+00	.3837686E+00	.6313987E-03	.16
78	.4101000E+00	.4122539E+00	-.2153928E-02	-.52
79	.4384000E+00	.4432593E+00	-.4859292E-02	-1.10
80	.4719000E+00	.4766275E+00	-.4727458E-02	-.99
81	.4802000E+00	.4835719E+00	-.3371942E-02	-.70
82	.4891000E+00	.4906042E+00	-.1504235E-02	-.31
83	.4979000E+00	.4977233E+00	.1766609E-03	.04
84	.5061000E+00	.5049283E+00	.1171718E-02	.23
85	.5132000E+00	.5122181E+00	.9818802E-03	.19
86	.3260000E+00	.3197157E+00	.6284270E-02	1.97
87	.3472000E+00	.3462263E+00	.9737087E-03	.28
88	.3727000E+00	.3712898E+00	.1410176E-02	.38
89	.3997000E+00	.3992151E+00	.4849418E-03	.12
90	.4267000E+00	.4300360E+00	-.3336023E-02	-.78
91	.4596000E+00	.4635887E+00	-.3988688E-02	-.86
92	.4670000E+00	.4706117E+00	-.3611675E-02	-.77
93	.4741000E+00	.4777357E+00	-.3635732E-02	-.76
94	.4822000E+00	.4849596E+00	-.2759605E-02	-.57
95	.4912000E+00	.4922821E+00	-.1082074E-02	-.22
96	.5012000E+00	.4997020E+00	.1498045E-02	.30
97	.3384000E+00	.3293717E+00	.9028293E-02	2.74
98	.3623000E+00	.3614341E+00	.8658778E-03	.24
99	.3900000E+00	.3887294E+00	.1270618E-02	.33
100	.4171000E+00	.4192340E+00	-.2133990E-02	-.51

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
101	.4491000E+00	.4529553E+00	-.3855332E-02	-.85
102	.4558000E+00	.4600690E+00	-.4269049E-02	-.93
103	.4634000E+00	.4673021E+00	-.3902095E-02	-.84
104	.4712000E+00	.4746529E+00	-.3452872E-02	-.73
105	.4791000E+00	.4821198E+00	-.3019812E-02	-.63
106	.2671000E+00	.2674702E+00	-.3701501E-03	-.14
107	.2861000E+00	.2851084E+00	.9916489E-03	.35
108	.3049000E+00	.3016112E+00	.3288817E-02	1.09
109	.3231000E+00	.3205480E+00	.2552001E-02	.80
110	.3416000E+00	.3417655E+00	-.1654802E-03	-.05
111	.3635000E+00	.3650764E+00	-.1576350E-02	-.43
112	.3889000E+00	.3903218E+00	-.1421796E-02	-.36
113	.4186000E+00	.4173708E+00	.1229176E-02	.29
114	.4228000E+00	.4229871E+00	-.8128604E-03	.19
115	.4294000E+00	.4286704E+00	.7295985E-03	.17
116	.4352000E+00	.4344199E+00	.7801479E-03	.18
117	.4411000E+00	.4402348E+00	.8652417E-03	.20
118	.4473000E+00	.4461144E+00	.1185590E-02	.27
119	.2784000E+00	.2746377E+00	.3762325E-02	1.37
120	.3000000E+00	.2955171E+00	.4482926E-02	1.52
121	.3168000E+00	.3145043E+00	.2295696E-02	.73
122	.3363000E+00	.3361264E+00	.1736063E-03	.05
123	.3584000E+00	.3602599E+00	-.1859861E-02	-.52
124	.3838000E+00	.3867131E+00	-.2913108E-02	-.75
125	.4138000E+00	.4153173E+00	-.1517313E-02	-.37
126	.4205000E+00	.4212834E+00	-.7833859E-03	.19
127	.4271000E+00	.4273288E+00	-.2287519E-03	-.05
128	.4338000E+00	.4334524E+00	.3475874E-03	.08
129	.4410000E+00	.4396535E+00	.1346518E-02	.31
130	.4488000E+00	.4459310E+00	.2889013E-02	.64
131	.2847000E+00	.2809889E+00	.3711094E-02	1.32
132	.3052000E+00	.3002711E+00	.4928904E-02	1.64
133	.3229000E+00	.3202983E+00	.2601741E-02	.81
134	.3432000E+00	.3430632E+00	.1368474E-03	.04
135	.3670000E+00	.3684488E+00	-.1448778E-02	-.39
136	.3943000E+00	.3962590E+00	-.1959020E-02	-.48
137	.4259000E+00	.4263183E+00	-.4192901E-03	.10
138	.4327000E+00	.4325880E+00	.1120250E-03	.03
139	.4396000E+00	.4389397E+00	.6603443E-03	.15
140	.2903000E+00	.2853784E+00	.4921566E-02	1.72
141	.3126000E+00	.3097400E+00	.2860031E-02	.92
142	.3345000E+00	.3316500E+00	.2849953E-02	.86
143	.3575000E+00	.3565249E+00	.9751411E-03	.27
144	.3845000E+00	.3842461E+00	.2538782E-03	.07
145	.4153000E+00	.4146037E+00	.6963249E-03	.17
146	.4216000E+00	.4209744E+00	.6255936E-03	.15
147	.4283000E+00	.4274416E+00	.8583956E-03	.20
148	.3020000E+00	.2959427E+00	.6057287E-02	2.05
149	.3250000E+00	.3226241E+00	.2375936E-02	.74
150	.3496000E+00	.3467659E+00	.2834132E-02	.82

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
151	.3760000E+00	.3742201E+00	.1779945E-02	.48
152	.4065000E+00	.4048417E+00	.1658304E-02	.41
153	.4126000E+00	.4113248E+00	.1275185E-02	.31
154	.2520000E+00	.2507266E+00	.1273443E-02	.51
155	.2647000E+00	.2634531E+00	.1246863E-02	.47
156	.2782000E+00	.2776609E+00	.5391446E-03	.19
157	.2939000E+00	.2946588E+00	-.7587617E-03	-.26
158	.3116000E+00	.3140928E+00	-.2492788E-02	-.79
159	.3340000E+00	.3357015E+00	-.1701524E-02	-.51
160	.3577000E+00	.3592899E+00	-.1589916E-02	-.44
161	.3858000E+00	.3847065E+00	.1093521E-02	.28
162	.3908000E+00	.3899980E+00	.8019532E-03	.21
163	.3962000E+00	.3953569E+00	.8430530E-03	.21
164	.4019000E+00	.4007824E+00	.1117648E-02	.28
165	.2585000E+00	.2564120E+00	.2088050E-02	.81
166	.2734000E+00	.2723797E+00	.1020272E-02	.37
167	.2897000E+00	.2890718E+00	.6281552E-03	.22
168	.3083000E+00	.3087550E+00	-.4550243E-03	-.15
169	.3298000E+00	.3311050E+00	-.1305036E-02	-.39
170	.3529000E+00	.3558561E+00	-.1956149E-02	-.55
171	.3822000E+00	.3828032E+00	-.6033009E-03	-.16
172	.3884000E+00	.3884414E+00	-.4140207E-04	-.01
173	.3948000E+00	.3941596E+00	.6403610E-03	.16
174	.2619000E+00	.2595946E+00	.2305370E-02	.89
175	.2783000E+00	.2768526E+00	.1447361E-02	.52
176	.2956000E+00	.2945847E+00	.1015311E-02	.34
177	.3160000E+00	.3154107E+00	.5893279E-03	.19
178	.3382000E+00	.3390128E+00	-.8128421E-03	-.24
179	.3639000E+00	.3651210E+00	-.1220951E-02	-.33
180	.3896000E+00	.3706239E+00	.1023875E-02	-.28
181	.3754000E+00	.3762170E+00	-.8170173E-03	-.22
182	.3815000E+00	.3818990E+00	-.3989891E-03	-.10
183	.3878000E+00	.3876685E+00	.1315371E-03	.03
184	.2691000E+00	.2670985E+00	.2001532E-02	.75
185	.2887000E+00	.2865484E+00	.2151618E-02	.75
186	.3083000E+00	.3061633E+00	.2136653E-02	.70
187	.3304000E+00	.3290992E+00	.1300751E-02	.40
188	.3550000E+00	.3550371E+00	-.3705634E-04	-.01
189	.3605000E+00	.3605587E+00	-.5869163E-04	-.02
190	.3661000E+00	.3661869E+00	-.8687571E-04	-.02
191	.3719000E+00	.3719197E+00	-.1974037E-04	-.01
192	.3779000E+00	.3777555E+00	.1444961E-03	.04
193	.2821000E+00	.2815412E+00	.5588450E-03	.20
194	.3033000E+00	.3011207E+00	.2179278E-02	.72
195	.3236000E+00	.3229674E+00	.6325867E-03	.20
196	.3477000E+00	.3484827E+00	-.7826901E-03	-.22
197	.3529000E+00	.3539955E+00	-.1095506E-02	-.31
198	.3584000E+00	.3596383E+00	-.1238287E-02	-.34
199	.3641000E+00	.3654084E+00	-.1308420E-02	-.36
200	.3057000E+00	.3054602E+00	.2397693E-03	.08

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
201	.3284000E+00	.3257072E+00	-.2692846E-02	.83
202	.3476000E+00	.3460567E+00	-.1543301E-02	.45
203	.3715000E+00	.3725692E+00	-.1069179E-02	-.29
204	.3930000E+00	.3967088E+00	-.3708766E-02	-.93
205	.4240000E+00	.4271334E+00	-.3133381E-02	-.73
206	.4592000E+00	.4586574E+00	-.5425640E-03	.12
207	.4919000E+00	.4933128E+00	-.1412839E-02	-.29
208	.5292000E+00	.5302091E+00	-.1009106E-02	-.19
209	.5419000E+00	.5378458E+00	-.4054232E-02	.75
210	.5488000E+00	.5455660E+00	-.3233966E-02	.59
211	.5498000E+00	.5533690E+00	-.3569021E-02	-.64
212	.3094000E+00	.3180095E+00	-.8609478E-02	-2.71
213	.3344000E+00	.3414976E+00	-.7097599E-02	-2.08
214	.3620000E+00	.3643315E+00	-.2331542E-02	-.64
215	.3920000E+00	.3907923E+00	-.1207720E-02	.31
216	.4220000E+00	.4205849E+00	-.1415132E-02	.34
217	.4503000E+00	.4534128E+00	-.3112829E-02	-.69
218	.4854000E+00	.4890347E+00	-.3634675E-02	-.74
219	.5325000E+00	.5272547E+00	-.5245276E-02	.99
220	.5439000E+00	.5351958E+00	-.8704171E-02	1.63
221	.5494000E+00	.5432332E+00	-.6166821E-02	1.14
222	.5502000E+00	.5513657E+00	-.1165660E-02	-.21
223	.3174000E+00	.3238065E+00	-.6406452E-02	-1.98
224	.3455000E+00	.3485848E+00	-.3084804E-02	-.88
225	.3743000E+00	.3724587E+00	-.1841320E-02	.49
226	.4040000E+00	.4000622E+00	-.3937778E-02	.98
227	.4350000E+00	.4342317E+00	-.7683300E-03	.18
228	.4650000E+00	.4687020E+00	-.3701983E-02	-.79
229	.5026000E+00	.5023698E+00	-.2301644E-03	.05
230	.5495000E+00	.5421396E+00	-.7380422E-02	1.36
231	.5498000E+00	.5504014E+00	-.6014720E-03	-.11
232	.3384000E+00	.3354824E+00	-.2917563E-03	.27
233	.3647000E+00	.3624527E+00	-.2473070E-02	.62
234	.3935000E+00	.3882095E+00	-.5290516E-02	1.36
235	.4180000E+00	.4153021E+00	-.2697918E-02	.65
236	.4480000E+00	.4475614E+00	-.4385848E-03	.10
237	.4892000E+00	.4880356E+00	-.1164413E-02	.24
238	.4987000E+00	.4957604E+00	-.2939633E-02	.59
239	.5048000E+00	.5036068E+00	-.3193212E-02	.63
240	.5156000E+00	.5115731E+00	-.4026914E-02	.79
241	.5257000E+00	.5196576E+00	-.6042434E-02	1.16
242	.5361000E+00	.5278586E+00	-.8241401E-02	1.56
243	.3532000E+00	.3515973E+00	-.1602707E-02	.46
244	.3807000E+00	.3808874E+00	-.1873661E-03	-.05
245	.4070000E+00	.4088759E+00	-.1875884E-02	-.46
246	.4382000E+00	.4411687E+00	-.2968719E-02	-.67
247	.4759000E+00	.4774495E+00	-.1549481E-02	-.32
248	.4854000E+00	.4851530E+00	-.2470342E-03	.05
249	.4939000E+00	.4929996E+00	-.9004170E-03	.18
250	.5022000E+00	.5009870E+00	-.1213025E-02	.24

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
251	.5103000E+00	.5091129E+00	-.1187121E-02	.23
252	.5189000E+00	.5173751E+00	-.1524874E-02	.29
253	.2848000E+00	.2896095E+00	-.4809502E-02	-1.66
254	.3048000E+00	.3076086E+00	-.2808616E-02	-.91
255	.3275000E+00	.3267166E+00	-.7834483E-03	.24
256	.3474000E+00	.3475700E+00	-.1700144E-03	-.05
257	.3734000E+00	.3720009E+00	-.1399059E-02	.38
258	.3985000E+00	.3990157E+00	-.5156597E-03	-.13
259	.4261000E+00	.4283979E+00	-.2297892E-02	-.54
260	.4579000E+00	.4615215E+00	-.3631547E-02	-.79
261	.4896000E+00	.4936085E+00	-.4008470E-02	-.81
262	.4965000E+00	.5005710E+00	-.4071047E-02	-.81
263	.2948000E+00	.3003916E+00	-.5591619E-02	-1.66
264	.3197000E+00	.3216319E+00	-.1931930E-02	-.60
265	.3445000E+00	.3425068E+00	-.1993210E-02	.58
266	.3664000E+00	.3667630E+00	-.3630003E-03	.10
267	.3913000E+00	.3941099E+00	-.2809912E-02	-.71
268	.4213000E+00	.4242670E+00	-.2967009E-02	-.70
269	.4521000E+00	.4570080E+00	-.4908001E-02	-1.07
270	.4912000E+00	.4921503E+00	-.9503345E-03	-.19
271	.4981000E+00	.4994533E+00	-.1353289E-02	-.27
272	.3015000E+00	.3053277E+00	-.3827666E-02	-1.25
273	.3269000E+00	.3278582E+00	-.9582082E-03	-.29
274	.3505000E+00	.3497730E+00	-.7269985E-03	.21
275	.3736000E+00	.3751720E+00	-.1572016E-02	-.42
276	.4019000E+00	.4037711E+00	-.1871086E-02	-.46
277	.4310000E+00	.4352852E+00	-.4285177E-02	-.98
278	.4652000E+00	.4694822E+00	-.4282234E-02	-.91
279	.4732000E+00	.4766264E+00	-.3426415E-02	-.72
280	.4816000E+00	.4838690E+00	-.2268962E-02	-.47
281	.4901000E+00	.4912086E+00	-.1108600E-02	-.23
282	.3116000E+00	.3151819E+00	-.3581917E-02	-1.14
283	.3365000E+00	.3399044E+00	-.3404364E-02	-1.00
284	.3633000E+00	.3637021E+00	-.4020723E-03	-.11
285	.3909000E+00	.3912110E+00	-.3110049E-03	-.08
286	.4195000E+00	.4221457E+00	-.2645713E-02	-.63
287	.4522000E+00	.4562071E+00	-.4007105E-02	-.88
288	.4597000E+00	.4633721E+00	-.3672064E-02	-.79
289	.4676000E+00	.4706504E+00	-.3050382E-02	-.65
290	.4760000E+00	.4780404E+00	-.2040404E-02	-.43
291	.3283000E+00	.3286304E+00	-.2330413E-02	-.71
292	.3533000E+00	.3556727E+00	-.2372677E-02	-.67
293	.3810000E+00	.3817021E+00	-.7021112E-03	.18
294	.4100000E+00	.4117904E+00	-.1790419E-02	-.43
295	.4418000E+00	.4456255E+00	-.3825504E-02	-.86
296	.4490000E+00	.4528122E+00	-.3812317E-02	-.84
297	.4656000E+00	.4601334E+00	-.5433387E-02	-.79
298	.2613000E+00	.2643714E+00	-.3071354E-02	-1.16
299	.2780000E+00	.2776786E+00	-.3213974E-03	.12
300	.2955000E+00	.2929393E+00	-.2560718E-02	.87

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
301	.3128000E+00	.3112994E+00	.1500630E-02	.48
302	.3331000E+00	.3323458E+00	.7541856E-03	.23
303	.3547000E+00	.3557831E+00	-.1083059E-02	-.30
304	.3806000E+00	.3813930E+00	-.7929944E-03	-.21
305	.4117000E+00	.4090072E+00	.2692799E-02	.66
306	.4171000E+00	.4147582E+00	.2341776E-02	.56
307	.4230000E+00	.4205830E+00	.2417001E-02	.57
308	.4292000E+00	.4264806E+00	.2719388E-02	.64
309	.4356000E+00	.4324502E+00	.3149820E-02	.73
310	.2711000E+00	.2724987E+00	-.1398693E-02	-.51
311	.2892000E+00	.2890471E+00	.1528602E-03	.05
312	.3076000E+00	.3067922E+00	.8077825E-03	.26
313	.3278000E+00	.3278376E+00	-.3757907E-04	-.01
314	.3501000E+00	.3518000E+00	-.1700009E-02	-.48
315	.3763000E+00	.3783798E+00	-.2079531E-02	-.55
316	.4072000E+00	.4073483E+00	-.1483256E-03	-.04
317	.4139000E+00	.4134123E+00	.4876677E-03	.12
318	.4212000E+00	.4195534E+00	.1636607E-02	.39
319	.4284000E+00	.4258003E+00	.2599588E-02	.61
320	.2745000E+00	.2763303E+00	-.1830348E-02	-.66
321	.2956000E+00	.2941690E+00	.1430975E-02	.49
322	.3141000E+00	.3129540E+00	.1145964E-02	.37
323	.3351000E+00	.3351422E+00	-.4220128E-04	-.01
324	.3590000E+00	.3603568E+00	-.1356789E-02	-.38
325	.3874000E+00	.3882934E+00	-.8934064E-03	-.23
326	.3936000E+00	.3941858E+00	-.5858080E-03	-.15
327	.4000000E+00	.4001760E+00	-.1759799E-03	-.04
328	.4066000E+00	.4062624E+00	.3376062E-03	.08
329	.4135000E+00	.4124436E+00	.1056411E-02	.26
330	.4205000E+00	.4187182E+00	.1781834E-02	.43
331	.2825000E+00	.2841998E+00	-.1699848E-02	-.60
332	.3044000E+00	.3042304E+00	.1695659E-03	.06
333	.3265000E+00	.3248984E+00	.1601644E-02	.49
334	.3499000E+00	.3491964E+00	.7035600E-03	.20
335	.3773000E+00	.3767467E+00	.5533344E-03	.15
336	.3833000E+00	.3826176E+00	.6824309E-03	.18
337	.3895000E+00	.3886034E+00	.8965751E-03	.23
338	.3959000E+00	.3947022E+00	.1197828E-02	.30
339	.4026000E+00	.4009118E+00	.1688152E-02	.42
340	.4095000E+00	.4072306E+00	.2269416E-02	.56
341	.2929000E+00	.2953246E+00	-.2424608E-02	-.82
342	.3172000E+00	.3176750E+00	-.4750067E-03	-.15
343	.3424000E+00	.3405747E+00	.1825341E-02	.54
344	.3691000E+00	.3674521E+00	.1647882E-02	.45
345	.3750000E+00	.3732687E+00	.1731284E-02	.46
346	.3811000E+00	.3792249E+00	.1875094E-02	.49
347	.3873000E+00	.3853178E+00	.1982215E-02	.51
348	.3937000E+00	.3915446E+00	.2155403E-02	.55
349	.2456000E+00	.2477510E+00	-.2150951E-02	-.87
350	.2555000E+00	.2561047E+00	-.6046723E-03	-.24

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
351	.2705000E+00	.2692867E+00	.1213251E-02	.45
352	.2863000E+00	.2860336E+00	.2664017E-03	.09
353	.3042000E+00	.3057047E+00	-.1504720E-02	-.49
354	.3253000E+00	.3279168E+00	-.2616832E-02	-.80
355	.3506000E+00	.3524070E+00	-.1807016E-02	-.51
356	.3797000E+00	.3789803E+00	.7196586E-03	.19
357	.3849000E+00	.3845310E+00	.3689723E-03	.10
358	.3905000E+00	.3901578E+00	.3421902E-03	.09
359	.2521000E+00	.2543962E+00	-.2296158E-02	-.90
360	.2651000E+00	.2659911E+00	-.8910774E-03	-.34
361	.2819000E+00	.2816576E+00	.2424475E-03	.09
362	.3009000E+00	.3010897E+00	-.1896748E-03	-.06
363	.3228000E+00	.3236768E+00	-.8767820E-03	-.27
364	.3472000E+00	.3490313E+00	-.1831272E-02	-.52
365	.3761000E+00	.3768802E+00	-.7802154E-03	-.21
366	.3824000E+00	.3827304E+00	-.3303867E-03	-.09
367	.2557000E+00	.2579467E+00	-.2246701E-02	-.87
368	.2701000E+00	.2708319E+00	-.7318511E-03	-.27
369	.2881000E+00	.2875383E+00	.5617402E-03	.20
370	.3087000E+00	.3081132E+00	.5868141E-03	.19
371	.3233000E+00	.3219525E+00	.1375485E-02	.40
372	.3575000E+00	.3586639E+00	-.1063936E-02	-.30
373	.3634000E+00	.3643250E+00	-.9249890E-03	-.25
374	.3694000E+00	.3700877E+00	-.6877260E-03	-.19
375	.3756000E+00	.3759504E+00	-.3503948E-03	-.09
376	.2634000E+00	.2660431E+00	-.2643072E-02	-.99
377	.2807000E+00	.2811201E+00	-.4201269E-03	-.15
378	.3012000E+00	.2997095E+00	.1490550E-02	.50
379	.3238000E+00	.3223943E+00	.1405705E-02	.44
380	.3490000E+00	.3485692E+00	.4308018E-03	.12
381	.3545000E+00	.3541849E+00	.3151230E-03	.09
382	.3602000E+00	.3599210E+00	.2790322E-03	.08
383	.2737000E+00	.2788561E+00	-.5156077E-02	-1.85
384	.2967000E+00	.2962529E+00	.4470515E-03	.15
385	.3173000E+00	.3170740E+00	.2260017E-03	.07
386	.3419000E+00	.3423382E+00	-.4382179E-03	-.13
387	.3475000E+00	.3478645E+00	-.3645105E-03	-.10
388	.2936000E+00	.2919529E+00	.1647099E-02	.56
389	.3129000E+00	.3129582E+00	-.5816644E-04	-.02
390	.3347000E+00	.3339769E+00	.7230837E-03	.22
391	.3605000E+00	.3610157E+00	-.5157224E-03	-.14
392	.3864000E+00	.3862246E+00	.1753644E-03	.05
393	.4193000E+00	.4168285E+00	.2471495E-02	.59
394	.4488000E+00	.4500828E+00	-.1282818E-02	-.29
395	.4844000E+00	.4857978E+00	-.1397757E-02	-.29
396	.5174000E+00	.5238179E+00	-.6417936E-02	-1.23
397	.5285000E+00	.5316868E+00	-.3186801E-02	-.60
398	.5401000E+00	.5395417E+00	.4583151E-03	.08
399	.3018000E+00	.3054520E+00	-.3661962E-02	-1.20
400	.3281000E+00	.3297084E+00	-.1608426E-02	-.49

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
401	.3556000E+00	.3532116E+00	.2388427E-02	.68
402	.3846000E+00	.3804280E+00	.4171962E-02	1.10
403	.4131000E+00	.4110506E+00	.2039448E-02	.50
404	.4395000E+00	.4448068E+00	-.5306798E-02	-1.19
405	.4778000E+00	.4814199E+00	-.3619871E-02	-.75
406	.5189000E+00	.5206995E+00	-.1799456E-02	-.35
407	.5315000E+00	.5288603E+00	.2633692E-02	.50
408	.3108000E+00	.3116268E+00	-.8267993E-02	-.27
409	.3382000E+00	.3371635E+00	.1036608E-02	.31
410	.3666000E+00	.3617066E+00	.4893425E-02	1.35
411	.3954000E+00	.3900658E+00	.5334156E-02	1.37
412	.4210000E+00	.4203570E+00	.6430040E-03	.15
413	.4528000E+00	.4570538E+00	-.4253757E-02	-.93
414	.4853000E+00	.4951228E+00	-.1771051E-03	.04
415	.5054000E+00	.5030738E+00	.2326169E-02	.46
416	.5147000E+00	.5111336E+00	.3566395E-02	.70
417	.5232000E+00	.5193008E+00	.3899187E-02	.75
418	.5332000E+00	.5275741E+00	.5625896E-02	1.07
419	.3263000E+00	.3238953E+00	.2404684E-02	.74
420	.3538000E+00	.3516239E+00	.2176084E-02	.62
421	.3820000E+00	.3780499E+00	.3950088E-02	1.04
422	.4092000E+00	.4085191E+00	.6809006E-03	.17
423	.4405000E+00	.4427394E+00	-.2239409E-02	-.51
424	.4796000E+00	.4803900E+00	-.7899511E-03	-.16
425	.4892000E+00	.4883073E+00	.8926991E-03	.18
426	.4992000E+00	.4963492E+00	.2850833E-02	.57
427	.5081000E+00	.5045137E+00	.3586253E-02	.71
428	.5176000E+00	.5127993E+00	.4800690E-02	.94
429	.3393000E+00	.3405707E+00	-.1270654E-02	-.37
430	.3693000E+00	.3706191E+00	-.1319070E-02	-.36
431	.3997000E+00	.3992768E+00	.4232072E-03	.11
432	.4302000E+00	.4323254E+00	-.2125355E-02	-.49
433	.4671000E+00	.4694460E+00	-.2346042E-02	-.50
434	.4761000E+00	.4773271E+00	-.1227099E-02	-.26
435	.4856000E+00	.4853544E+00	.2456243E-03	.05
436	.2747000E+00	.2765333E+00	-.1833335E-02	-.66
437	.2919000E+00	.2959096E+00	-.4009555E-02	-1.35
438	.3186000E+00	.3149087E+00	.1891257E-02	.60
439	.3400000E+00	.3389729E+00	.3027093E-02	.90
440	.3632000E+00	.3618415E+00	.1358474E-02	.38
441	.3878000E+00	.3884443E+00	-.5442512E-03	-.14
442	.4187000E+00	.4190267E+00	-.3267156E-03	-.08
443	.4523000E+00	.4509729E+00	.1327067E-02	.29
444	.4580000E+00	.4576115E+00	.3885495E-03	.08
445	.4641000E+00	.4643307E+00	-.2307089E-03	-.05
446	.4704000E+00	.4711298E+00	-.7297701E-03	-.15
447	.4770000E+00	.4780077E+00	-.1007727E-02	-.21
448	.4838000E+00	.4849637E+00	-.1163701E-02	-.24
449	.2884000E+00	.2882753E+00	.1247351E-03	.04
450	.3109000E+00	.3108927E+00	.7317071E-05	.00

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
451	.3341000E+00	.3323763E+00	.1723730E-02	.52
452	.3558000E+00	.3571257E+00	-.1225707E-02	-.34
453	.3820000E+00	.3849103E+00	-.2910311E-02	-.76
454	.4123000E+00	.4154723E+00	-.3172258E-02	-.76
455	.4452000E+00	.4485966E+00	-.3396638E-02	-.76
456	.4526000E+00	.4555129E+00	-.2912941E-02	-.64
457	.4601000E+00	.4625234E+00	-.2423360E-02	-.52
458	.4685000E+00	.4696267E+00	-.1126893E-02	-.24
459	.4770000E+00	.4768218E+00	.1782202E-03	.04
460	.4855000E+00	.4841075E+00	.1392498E-02	.29
461	.2942000E+00	.2935792E+00	.6208246E-03	.21
462	.3178000E+00	.3174868E+00	.3131758E-03	.10
463	.3399000E+00	.3400103E+00	-.1103446E-03	-.03
464	.3645000E+00	.3659026E+00	-.1402586E-02	-.38
465	.3923000E+00	.3949393E+00	-.2639348E-02	-.67
466	.4233000E+00	.4268583E+00	-.3558290E-02	-.83
467	.4587000E+00	.4614387E+00	-.2738735E-02	-.59
468	.4668000E+00	.4686576E+00	-.1857649E-02	-.40
469	.4754000E+00	.4759744E+00	-.5742833E-03	-.12
470	.3026000E+00	.3040260E+00	-.1425958E-02	-.47
471	.3287000E+00	.3301255E+00	-.1425513E-02	-.43
472	.3546000E+00	.3545319E+00	.6805208E-04	.02
473	.3817000E+00	.3825341E+00	-.8341077E-03	-.22
474	.4125000E+00	.4139065E+00	-.1406508E-02	-.34
475	.4456000E+00	.4483728E+00	-.2772751E-02	-.62
476	.4532000E+00	.4556158E+00	-.2415845E-02	-.53
477	.3163000E+00	.3180349E+00	-.1734936E-02	-.55
478	.3437000E+00	.3464543E+00	-.2754307E-02	-.79
479	.3730000E+00	.3730925E+00	-.9246825E-04	-.02
480	.4032000E+00	.4036740E+00	-.4740028E-03	-.12
481	.4091000E+00	.4102435E+00	-.1143537E-02	-.28
482	.4152000E+00	.4169581E+00	-.1758088E-02	-.42
483	.4216000E+00	.4238151E+00	-.2215113E-02	-.52
484	.4281000E+00	.4308121E+00	-.2712141E-02	-.63
485	.4351000E+00	.4379468E+00	-.2846780E-02	-.65
486	.2542000E+00	.2521575E+00	.2042489E-02	.81
487	.2690000E+00	.2675311E+00	.1468935E-02	.55
488	.2848000E+00	.2834241E+00	.1375856E-02	.49
489	.3036000E+00	.3021170E+00	.1482967E-02	.49
490	.3241000E+00	.3233164E+00	.7836121E-03	.24
491	.3464000E+00	.3467761E+00	-.3761313E-03	-.11
492	.3727000E+00	.3723051E+00	.3949477E-03	.11
493	.4046000E+00	.3997516E+00	.4848397E-02	1.21
494	.4104000E+00	.4054598E+00	.4940220E-02	1.22
495	.4166000E+00	.4112388E+00	.5361210E-02	1.30
496	.4232000E+00	.4170878E+00	.6112210E-02	1.47
497	.2623000E+00	.2612447E+00	.1055336E-02	.40
498	.2795000E+00	.2798594E+00	-.3594156E-03	-.13
499	.2983000E+00	.2982369E+00	.6310635E-04	.02
500	.3197000E+00	.3196151E+00	.8494449E-04	.03

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
501	.3423000E+00	.3437304E+00	-.1430396E-02	-.42
502	.3687000E+00	.3703325E+00	-.1632517E-02	-.44
503	.4006000E+00	.3992202E+00	.1379803E-02	.35
504	.4078000E+00	.4052572E+00	.2542824E-02	.63
505	.4152000E+00	.4113779E+00	.3822137E-02	.93
506	.2667000E+00	.2654442E+00	.1255819E-02	.47
507	.2846000E+00	.2853492E+00	-.7491638E-03	-.26
508	.3053000E+00	.3047666E+00	.5334247E-03	.18
509	.3274000E+00	.3272875E+00	.1124589E-03	.03
510	.3515000E+00	.3526550E+00	-.1155040E-02	-.33
511	.3802000E+00	.3806142E+00	-.4141556E-03	-.11
512	.3865000E+00	.3864980E+00	.2007127E-05	.00
513	.3931000E+00	.3924756E+00	.6243556E-03	.16
514	.4000000E+00	.3985457E+00	.1454276E-02	.36
515	.2754000E+00	.2739062E+00	.1493786E-02	.55
516	.2553000E+00	.2560631E+00	-.7031017E-03	-.24
517	.3191000E+00	.3173034E+00	.1796572E-02	.57
518	.3428000E+00	.3419343E+00	.9656878E-03	.28
519	.3704000E+00	.3696374E+00	.7625512E-03	.21
520	.3754000E+00	.3755222E+00	-.8777823E-03	-.23
521	.3826000E+00	.3815170E+00	.1082961E-02	.28
522	.3891000E+00	.3876201E+00	.1479920E-02	.38
523	.2868000E+00	.2855915E+00	.1208544E-02	.42
524	.3096000E+00	.3100082E+00	-.4081588E-03	-.13
525	.3356000E+00	.3354042E+00	.2059788E-02	.62
526	.3629000E+00	.3607505E+00	.2149528E-02	.60
527	.3688000E+00	.3666100E+00	.2190049E-02	.60
528	.2363000E+00	.2363994E+00	-.9943148E-04	-.04
529	.2471000E+00	.2467776E+00	.3224468E-03	.13
530	.2622000E+00	.2608085E+00	.1391459E-02	.53
531	.2788000E+00	.2782139E+00	.5861389E-03	.21
532	.2973000E+00	.2984460E+00	-.1146026E-02	-.38
533	.3187000E+00	.3211576E+00	-.2457639E-02	-.77
534	.3438000E+00	.3461041E+00	-.2304111E-02	-.67
535	.3733000E+00	.3731014E+00	.1986376E-03	.05
536	.3787000E+00	.3787336E+00	-.3361505E-04	-.01
537	.2439000E+00	.2440045E+00	-.1044523E-03	-.04
538	.2572000E+00	.2576238E+00	-.4237721E-03	-.16
539	.2743000E+00	.2741392E+00	.1608418E-03	.06
540	.2939000E+00	.2942298E+00	-.3297515E-03	-.11
541	.3165000E+00	.3173779E+00	-.8779025E-03	-.28
542	.3410000E+00	.3422319E+00	-.2231892E-02	-.65
543	.3464000E+00	.3487038E+00	-.2303768E-02	-.66
544	.3519000E+00	.3542718E+00	-.2371807E-02	-.67
545	.3577000E+00	.3599344E+00	-.2234393E-02	-.62
546	.3638000E+00	.3656900E+00	-.1889988E-02	-.52
547	.2479000E+00	.2479229E+00	-.2285866E-04	-.01
548	.2625000E+00	.2628324E+00	-.3324032E-03	-.13
549	.2809000E+00	.2803877E+00	.5122712E-03	.18
550	.3018000E+00	.3016211E+00	.1788740E-03	.06

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
551	.3254000E+00	.3260214E+00	-.6214354E-03	-.19
552	.3517000E+00	.3532324E+00	-.1532420E-02	-.43
553	.3575000E+00	.3589878E+00	-.1487765E-02	-.41
554	.2564000E+00	.2566118E+00	-.2117620E-03	-.08
555	.2736000E+00	.2737132E+00	-.1132174E-03	-.04
556	.2943000E+00	.2931515E+00	.1148548E-02	.39
557	.3178000E+00	.3164948E+00	.1305233E-02	.41
558	.3227000E+00	.3215842E+00	.1115847E-02	.35
559	.3278000E+00	.3268054E+00	.9945502E-03	.30
560	.3328000E+00	.3321556E+00	.6444476E-03	.19
561	.3379000E+00	.3376316E+00	.2684489E-03	.08
562	.3432000E+00	.3432307E+00	-.3071447E-04	-.01
563	.2675000E+00	.2699852E+00	-.2488524E-02	-.92
564	.2875000E+00	.2884055E+00	-.1906520E-02	-.66
565	.3115000E+00	.3110765E+00	.4235188E-03	.14
566	.3162000E+00	.3159402E+00	.2598137E-03	.08
567	.3211000E+00	.3209688E+00	.1312073E-03	.04
568	.3260000E+00	.3261577E+00	-.1576744E-03	-.05
569	.3156000E+00	.3120274E+00	.3572610E-02	1.14
570	.3465000E+00	.3454345E+00	.1065549E-02	.31
571	.3750000E+00	.3679785E+00	.7021460E-02	1.91
572	.3965000E+00	.3903955E+00	.6104549E-02	1.56
573	.4116000E+00	.4162401E+00	-.4640099E-02	-1.11
574	.4374000E+00	.4438814E+00	-.6481361E-02	-1.46
575	.4734000E+00	.4732710E+00	.1290145E-03	.03
576	.5211000E+00	.5043416E+00	.1675836E-01	3.32
577	.5474000E+00	.5370245E+00	.1037550E-01	1.93
578	.5496000E+00	.5437487E+00	.5851286E-02	1.08
579	.5502000E+00	.5505343E+00	-.3343033E-03	-.06
580	.5505000E+00	.5573808E+00	-.6880775E-02	-1.23
581	.5543000E+00	.5642877E+00	-.9987651E-02	-1.77
582	.5598000E+00	.5712545E+00	-.1145446E-01	-2.01
583	.3165000E+00	.3226570E+00	-.6157009E-02	-1.91
584	.3504000E+00	.3574230E+00	-.7022960E-02	-1.96
585	.3818000E+00	.3826676E+00	-.8675990E-03	-.23
586	.4050000E+00	.4094359E+00	-.4435939E-02	-1.08
587	.4358000E+00	.4381966E+00	-.2396574E-02	-.59
588	.4701000E+00	.4689802E+00	.1119787E-02	.24
589	.5100000E+00	.5017286E+00	.8271403E-02	1.65
590	.5482000E+00	.5263639E+00	.1183610E-01	2.21
591	.5495000E+00	.5435104E+00	.5989593E-02	1.10
592	.5500000E+00	.5507286E+00	-.7286174E-03	-.13
593	.5507000E+00	.5580179E+00	-.7317931E-02	-1.31
594	.5555000E+00	.5653778E+00	-.9877755E-02	-1.75
595	.5611000E+00	.5728075E+00	-.1170751E-01	-2.04
596	.3200000E+00	.3277183E+00	-.7718256E-02	-2.36
597	.3545000E+00	.3637744E+00	-.9274439E-02	-2.55
598	.3882000E+00	.3900590E+00	-.1859011E-02	-.48
599	.4170000E+00	.4179702E+00	-.9701551E-03	-.23
600	.4487000E+00	.4479829E+00	.7170521E-03	.16

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
601	.4808000E+00	.4801236E+00	.6764182E-03	.14
602	.5217000E+00	.5143280E+00	.7371869E-02	1.43
603	.5500000E+00	.5505130E+00	-.5130297E-03	-.09
604	.5509000E+00	.5578803E+00	-.7080272E-02	-1.27
605	.5566000E+00	.5655227E+00	-.8922733E-02	-1.58
606	.5629000E+00	.5731298E+00	-.1023978E-01	-1.79
607	.5646000E+00	.5382092E+00	-.2609176E-02	-1.07
608	.5707000E+00	.5764573E+00	-.5757263E-02	-1.53
609	.4078000E+00	.4046248E+00	.3175250E-02	.78
610	.4378000E+00	.4246458E+00	.3154187E-02	.73
611	.4672000E+00	.4669942E+00	.2057567E-03	.04
612	.5026000E+00	.5016822E+00	.9178218E-03	.18
613	.5488000E+00	.5386317E+00	.1016827E-01	1.89
614	.5490000E+00	.5462847E+00	.2615334E-02	.48
615	.5507000E+00	.5540235E+00	-.3323472E-02	-.60
616	.5547000E+00	.5618474E+00	-.7147382E-02	-1.27
617	.5608000E+00	.5697556E+00	-.8955643E-02	-1.57
618	.5455000E+00	.5532031E+00	-.7703070E-02	-2.18
619	.5857000E+00	.5937710E+00	-.8070973E-02	-2.05
620	.4254000E+00	.4241702E+00	.1229813E-02	.29
621	.4555000E+00	.4535530E+00	.1946990E-02	.43
622	.4925000E+00	.4920194E+00	.4805676E-03	.10
623	.5342000E+00	.5299008E+00	.4299245E-02	.81
624	.5438000E+00	.5377845E+00	.6015544E-02	1.12
625	.5494000E+00	.5457685E+00	.3631476E-02	.67
626	.5501000E+00	.5538520E+00	-.3752034E-02	-.68
627	.5925000E+00	.5960535E+00	-.3553472E-02	-1.20
628	.5190000E+00	.5240929E+00	-.5092888E-02	-1.57
629	.5473000E+00	.5450150E+00	.2284999E-02	.66
630	.5665000E+00	.5649332E+00	.1566807E-02	.43
631	.5885000E+00	.5916220E+00	-.3121979E-02	-.80
632	.4140000E+00	.4189009E+00	-.4900891E-02	-1.17
633	.4415000E+00	.4453437E+00	-.3843694E-02	-.86
634	.4721000E+00	.4747187E+00	-.2618651E-02	-.55
635	.5066000E+00	.5056702E+00	.9298070E-03	.18
636	.5159000E+00	.5120436E+00	.3856399E-02	.75
637	.5240000E+00	.5184768E+00	.5523176E-02	1.07
638	.5315000E+00	.5249694E+00	.6530640E-02	1.24
639	.5385000E+00	.5315207E+00	.6979283E-02	1.31
640	.5005000E+00	.5049160E+00	-.4415961E-02	-1.45
641	.5310000E+00	.5361966E+00	-.5196576E-02	-1.55
642	.5601000E+00	.5596031E+00	.4969141E-03	.14
643	.5867000E+00	.5846919E+00	.2008102E-02	.52
644	.4112000E+00	.4118113E+00	-.6113231E-03	-.15
645	.4354000E+00	.4409510E+00	-.5550965E-02	-1.26
646	.4665000E+00	.4720342E+00	-.5534175E-02	-1.17
647	.5086000E+00	.5049738E+00	.3626222E-02	.72
648	.5182000E+00	.5117770E+00	.6423016E-02	1.26
649	.5259000E+00	.5186504E+00	.7249563E-02	1.40
650	.5328000E+00	.5255935E+00	.7206490E-02	1.37

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
651	.5402000E+00	.5326056E+00	.7594410E-02	1.43
652	.5082000E+00	.5091163E+00	-.9162812E-03	-.30
653	.5393000E+00	.5416871E+00	-.2387127E-02	-.70
654	.5699000E+00	.5661336E+00	.3766429E-02	1.03
655	.5959000E+00	.5923652E+00	.3534813E-02	.90
656	.4176000E+00	.4207368E+00	-.3136770E-02	-.75
657	.4466000E+00	.4512334E+00	-.5233470E-02	-1.16
658	.4797000E+00	.4837727E+00	-.4072682E-02	-.84
659	.5273000E+00	.5182620E+00	.9038022E-02	1.74
660	.5343000E+00	.5253859E+00	.8914078E-02	1.70
661	.5172000E+00	.5177855E+00	-.5854676E-03	-.18
662	.5511000E+00	.5525482E+00	-.1448218E-02	-.41
663	.3832000E+00	.3788776E+00	.4322423E-02	1.14
664	.4074000E+00	.4072191E+00	.1808885E-03	.04
665	.4343000E+00	.4379263E+00	-.3626332E-02	-.83
666	.4667000E+00	.4709703E+00	-.4270270E-02	-.91
667	.5107000E+00	.5062546E+00	.4445354E-02	.88
668	.5196000E+00	.5135711E+00	.6028908E-02	1.17
669	.5286000E+00	.5209721E+00	.7627877E-02	1.46
670	.5270000E+00	.5301130E+00	-.3113001E-02	-.94
671	.5621000E+00	.5671956E+00	-.5095568E-02	-1.39
672	.5975000E+00	.5957567E+00	.1743348E-02	.44
673	.4247000E+00	.4266776E+00	-.1977562E-02	-.46
674	.4562000E+00	.4602852E+00	-.4085161E-02	-.89
675	.4940000E+00	.4965225E+00	-.2522486E-02	-.51
676	.5029000E+00	.5040752E+00	-.1175232E-02	-.23
677	.2648000E+00	.2705689E+00	-.5768946E-02	-2.13
678	.2898000E+00	.2925381E+00	-.2738100E-02	-.94
679	.3133000E+00	.3102831E+00	.3016917E-02	.97
680	.3333000E+00	.3297968E+00	.3503372E-02	1.06
681	.3508000E+00	.3511851E+00	-.3851460E-03	-.11
682	.3722000E+00	.3743696E+00	-.2169641E-02	-.58
683	.3964000E+00	.3992506E+00	-.2850598E-02	-.71
684	.4242000E+00	.4257344E+00	-.1534446E-02	-.36
685	.4510000E+00	.4537380E+00	-.2737967E-02	-.60
686	.4574000E+00	.4595144E+00	-.2114429E-02	-.46
687	.2750000E+00	.2767767E+00	-.1776657E-02	-.64
688	.3019000E+00	.3019870E+00	-.8700895E-04	-.03
689	.3259000E+00	.3222164E+00	.3683609E-02	1.14
690	.3449000E+00	.3444152E+00	.4847916E-03	.14
691	.3667000E+00	.3687197E+00	-.2018713E-02	-.55
692	.3915000E+00	.3950466E+00	-.3546585E-02	-.90
693	.4201000E+00	.4232853E+00	-.3186301E-02	-.75
694	.4525000E+00	.4533348E+00	-.8347952E-03	-.18
695	.4589000E+00	.4595532E+00	-.6531631E-03	-.14
696	.2783000E+00	.2788726E+00	-.572584E-02	-.56
697	.3054000E+00	.3063732E+00	-.9731671E-03	-.32
698	.3312000E+00	.3276425E+00	.3557518E-02	1.09
699	.3517000E+00	.3509841E+00	.7158916E-03	.20
700	.3749000E+00	.3765408E+00	-.1640766E-02	-.44

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
701	.4014000E+00	.4042246E+00	-.2824634E-02	-.70
702	.4317000E+00	.4339204E+00	-.2220414E-02	-.51
703	.4380000E+00	.4400912E+00	-.2091165E-02	-.48
704	.4446000E+00	.4463372E+00	-.1737152E-02	-.39
705	.4517000E+00	.4526576E+00	-.9575713E-03	-.21
706	.2865000E+00	.2865570E+00	-.5702017E-04	-.02
707	.3150000E+00	.3152495E+00	-.2495077E-03	-.08
708	.3425000E+00	.3384017E+00	.4098262E-02	1.21
709	.3654000E+00	.3638533E+00	.1546722E-02	.43
710	.3914000E+00	.3917856E+00	-.3455780E-03	-.09
711	.4209000E+00	.4219767E+00	-.1076746E-02	-.26
712	.4274000E+00	.4282822E+00	-.8922168E-03	-.21
713	.4339000E+00	.4346950E+00	-.7950271E-03	-.18
714	.4405000E+00	.4411842E+00	-.6841793E-03	-.16
715	.2987000E+00	.2965608E+00	.2139183E-02	.72
716	.3299000E+00	.3275731E+00	.2326879E-02	.71
717	.3571000E+00	.3529571E+00	.4142922E-02	1.17
718	.3831000E+00	.3809880E+00	.2112007E-02	.55
719	.4118000E+00	.4117807E+00	.1932935E-04	.00
720	.4178000E+00	.4182600E+00	-.4599608E-03	-.11
721	.4240000E+00	.4248433E+00	-.8433048E-03	-.20
722	.4307000E+00	.4315295E+00	-.8294537E-03	-.19
723	.2515000E+00	.2537022E+00	-.2202164E-02	-.87
724	.2724000E+00	.2708016E+00	.1598398E-02	.59
725	.2867000E+00	.2860350E+00	.6650385E-03	.23
726	.3021000E+00	.3032839E+00	-.1183925E-02	-.39
727	.3212000E+00	.3224809E+00	-.1280855E-02	-.40
728	.3417000E+00	.3434862E+00	-.1786215E-02	-.52
729	.3645000E+00	.3661728E+00	-.1672815E-02	-.46
730	.3915000E+00	.3904326E+00	.1067383E-02	.27
731	.3965000E+00	.3954651E+00	.1034934E-02	.26
732	.4015000E+00	.4005561E+00	.9439157E-03	.24
733	.4069000E+00	.4057050E+00	.1194968E-02	.29
734	.4125000E+00	.4109113E+00	.1588713E-02	.39
735	.4184000E+00	.4161742E+00	.2225752E-02	.53
736	.2572000E+00	.2584277E+00	-.1227743E-02	-.48
737	.2799000E+00	.2787684E+00	.1131621E-02	.41
738	.2977000E+00	.2964861E+00	.1213863E-02	.41
739	.3163000E+00	.3164204E+00	-.1203737E-03	-.04
740	.3372000E+00	.3385333E+00	-.1332290E-02	-.39
741	.3606000E+00	.3626810E+00	-.2081027E-02	-.57
742	.3880000E+00	.3887264E+00	-.7263865E-03	-.19
743	.3940000E+00	.3941524E+00	-.1524174E-03	-.04
744	.4002000E+00	.3996487E+00	.5513031E-03	.14
745	.4066000E+00	.4052144E+00	.1385607E-02	.34
746	.4131000E+00	.4108487E+00	.2251301E-02	.55
747	.2604000E+00	.2612426E+00	-.8425593E-03	-.32
748	.2838000E+00	.2828734E+00	.9265740E-03	.33
749	.3036000E+00	.3016311E+00	.1968882E-02	.65
750	.3233000E+00	.3227082E+00	.5918418E-03	.18

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
751	.3451000E+00	.3460732E+00	-.9732327E-03	-.28
752	.3704000E+00	.3715780E+00	-.1177965E-02	-.32
753	.3998000E+00	.3990794E+00	.7206111E-03	.18
754	.4062000E+00	.4048080E+00	.1391968E-02	.34
755	.2669000E+00	.2681539E+00	-.1253865E-02	-.47
756	.2922000E+00	.2919766E+00	.2233631E-03	.08
757	.3157000E+00	.3126172E+00	.3082757E-02	.99
758	.3389000E+00	.3358042E+00	.1095798E-02	.33
759	.3613000E+00	.3615049E+00	-.2049145E-03	-.06
760	.3897000E+00	.3895569E+00	.1430524E-03	.04
761	.3958000E+00	.3954354E+00	.3646446E-03	.09
762	.2765000E+00	.2798459E+00	-.3345907E-02	-1.20
763	.3034000E+00	.3059885E+00	-.2588496E-02	-.85
764	.3299000E+00	.3288608E+00	.1039172E-02	.32
765	.3538000E+00	.3546272E+00	-.8271623E-03	-.23
766	.3595000E+00	.3601265E+00	-.6265018E-03	-.17
767	.3647000E+00	.3657379E+00	-.1037867E-02	-.28
768	.3701000E+00	.3714597E+00	-.1359674E-02	-.37
769	.3757000E+00	.3772903E+00	-.1590329E-02	-.42
770	.3814000E+00	.3832283E+00	-.1828252E-02	-.48

# NADC-77036-30

FRIDAY, JUL 2, 1976

## MAXIMUM RESIDUAL (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
576	.5211000E+00	.5043416E+00	.1675836E-01	3.32

FRIDAY, JUL 2, 1976

STANDARD DEVIATION (TOTAL) \* .2348197741E-02

STANDARD DEVIATION (WITHIN) \* .2326239423E-02

TREATMENT NO.	STANDARD DEVIATION (WITHIN)
1	.2803346997E-02
2	.1812706065E-02

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER
1	1
.1298922E+02-.6494611E+01-.5000000E+02-.5455456E+01.1091091E+00.4909465E+030.3430000E+03	
.3779645E+000.3247306E+010.8575000E+06-.1889822E+02	
.4123937E+010.4455303E+000-.1715000E+050.0.	
0.0.3265000E+00	
2	1
.3535534E+00-.1767767E+02-.5000000E+02-.3535534E+02.7071068E+00.1336306E+000.3430000E+03	
.3779645E+000.2500000E+04.8838835E+030.8575000E+06-.1889822E+02	
.2672612E+000.1212688E+030-.1715000E+050.0.	
0.0.3436000E+00	
3	1
.1035926E+01-.5179630E+02-.5000000E+02-.5059174E+02.1011835E+01.3915432E+000.3430000E+03	
.3779645E+000.2500000E+04.2589815E+040.8575000E+06-.1889822E+02	
.3824376E+000.3553226E+030-.1715000E+050.0.	
0.0.3605000E+00	
4	1
.1837117E+01-.9185587E+02-.5000000E+02-.6123724E+02.1224745E+01.6943651E+000.3430000E+03	
.3779645E+000.2500000E+04.4592793E+040.8575000E+06-.1889822E+02	
.4629100E+000.6301312E+030-.1715000E+050.0.	
0.0.3802000E+00	
5	1
.2828427E+01-.1414214E+03-.5000000E+02-.7071068E+02.1414214E+01.1069045E+010.3430000E+03	
.3779645E+000.2500000E+04.7071068E+040.8575000E+06-.1889822E+02	
.5345225E+000.9701505E+030-.1715000E+050.0.	
0.0.4021000E+00	
6	1
.3552847E+01-.1976424E+03-.5000000E+02-.7905694E+02.1581139E+01.1494036E+010.3430000E+03	
.3779645E+000.2500000E+04.9882118E+040.8575000E+06-.1889822E+02	
.5976143E+000.1355827E+040-.1715000E+050.0.	
0.0.4315000E+00	
7	1
.5196152E+01-.2598076E+03-.5000000E+02-.8660254E+02.1732051E+01.1963961E+010.3430000E+03	
.3779645E+000.2500000E+04.1299038E+050.8575000E+06-.1889822E+02	
.6546537E+000.1782280E+040-.1715000E+050.0.	
0.0.4661000E+00	
8	1
.6547900E+01-.3273950E+03-.5000000E+02-.9354143E+02.1870829E+01.2474874E+010.3430000E+03	
.3779645E+000.2500000E+04.1636975E+050.8575000E+06-.1889822E+02	
.7071068E+000.2245930E+040-.1715000E+050.0.	
0.0.5010000E+00	

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER
9	1
.8000000E+01-.4000000E+03-.5000000E+02-.1000000E+03.2000000E+01.3023716E+010.3430000E+03	
.3779645E+000.2000000E+050.8575000E+06-.1889822E+02	
.7559288E+000.2744000E+040-.1715000E+050.0.	
0.0.5415000E+00	
10	1
.8301867E+01-.4150934E+03-.5000000E+02-.1012423E+03.2024846E+01.3137811E+010.3430000E+03	
.3779645E+000.2500000E+04.2075467E+050.8575000E+06-.1889822E+02	
.7653197E+000.2847540E+040-.1715000E+050.0.	
0.0.5491000E+00	
11	1
.8607439E+01-.4303719E+03-.5000000E+02-.1024695E+03.2049390E+01.3253306E+010.3430000E+03	
.3779645E+000.2500000E+04.2151860E+050.8575000E+06-.1889822E+02	
.7745967E+000.2952351E+040-.1715000E+050.0.	
0.0.5504000E+00	
12	1
.8916670E+01-.4458335E+03-.5000000E+02-.1035822E+03.2073644E+01.3370184E+010.3430000E+03	
.3779645E+000.2500000E+04.2229167E+050.8575000E+06-.1889822E+02	
.7837638E+000.3058418E+040-.1715000E+050.0.	
0.0.5504000E+00	
13	1
.9229518E+01-.4614759E+03-.5000000E+02-.1048809E+03.2097618E+01.3488430E+010.3430000E+03	
.3779645E+000.2500000E+04.2307379E+050.8575000E+06-.1889822E+02	
.7928250E+000.3165725E+040-.1715000E+050.0.	
0.0.5536000E+00	
14	1
.3333333E+000.5000000E+020.0.0.0.7290000E+03	
.3333333E+000.2500000E+040.0.0.1822500E+07-.1666667E+02	
0.0.0.3298000E+00-.3645000E+050.0.	
0.0.0.	
15	1
.3535534E+00-.1767767E+02-.5000000E+02-.3535534E+02.7071068E+00.1178511E+000.7290000E+03	
.3333333E+000.2500000E+04.8838835E+030.1822500E+07-.1666667E+02	
.2357023E+000.2577404E+030-.3645000E+050.0.	
0.0.3458000E+00	
16	1
.1000000E+01-.5000000E+02-.5000000E+02-.5000000E+02.1000000E+01.3333333E+000.7290000E+03	
.3333333E+000.2500000E+04.7290000E+030.1822500E+07-.1666667E+02	
.3333333E+000.0.0.0.3645000E+050.0.	
0.0.3704000E+00	

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER						
17	1	.1837117E+01	.9185587E+02	.5000000E+02	.6123724E+02	.1224745E+01	.6123724E+000
		.3333333E+000		.2500000E+04	.4592793E+040	0.	.1822500E+07
		.4082483E+000	0.	0.	.1339259E+040	0.	.1666667E+02
		0.	0.	0.	.3989000E+00	-.3645000E+050	0.
18	1	.2828427E+01	.1414214E+03	.5000000E+02	.7071068E+02	.1414214E+01	.9428090E+000
		.3333333E+000		.2500000E+04	.7071068E+040	0.	.1822500E+07
		.4714045E+000	0.	0.	.2061923E+040	0.	.1666667E+02
		0.	0.	0.	.4296000E+00	-.3645000E+050	0.
19	1	.3952847E+01	.1976424E+03	.5000000E+02	.7905694E+02	.1581139E+01	.1317616E+010
		.3333333E+000		.2500000E+04	.9882118E+040	0.	.1822500E+07
		.5270463E+000	0.	0.	.2881626E+040	0.	.1666667E+02
		0.	0.	0.	.4608000E+00	-.3645000E+050	0.
20	1	.5196152E+01	.2598076E+03	.5000000E+02	.8660254E+02	.1732051E+01	.1732051E+010
		.3333333E+000		.2500000E+04	.1299038E+050	0.	.1822500E+07
		.5773503E+000	0.	0.	.3787995E+040	0.	.1666667E+02
		0.	0.	0.	.4952000E+00	-.3645000E+050	0.
21	1	.6547900E+01	.3273950E+03	.5000000E+02	.9354143E+02	.1870829E+01	.2182633E+010
		.3333333E+000		.2500000E+04	.1636975E+050	0.	.1822500E+07
		.6236096E+000	0.	0.	.4773419E+040	0.	.1666667E+02
		0.	0.	0.	.5440000E+00	-.3645000E+050	0.
22	1	.6830520E+01	.3415260E+03	.5000000E+02	.9486833E+02	.1897367E+01	.2276840E+010
		.3333333E+000		.2500000E+04	.1707630E+050	0.	.1822500E+07
		.6324555E+000	0.	0.	.4979449E+040	0.	.1666667E+02
		0.	0.	0.	.5491000E+00	-.3645000E+050	0.
23	1	.7117092E+01	.3558546E+03	.5000000E+02	.9617692E+02	.1923538E+01	.2372364E+010
		.3333333E+000		.2500000E+04	.1779273E+050	0.	.1822500E+07
		.6411795E+000	0.	0.	.5188360E+040	0.	.1666667E+02
		0.	0.	0.	.5499000E+00	-.3645000E+050	0.
24	1	.7407564E+01	.3703782E+03	.5000000E+02	.9746794E+02	.1949359E+01	.2469188E+010
		.3333333E+000		.2500000E+04	.1851891E+050	0.	.1822500E+07
		.6497863E+000	0.	0.	.5400114E+040	0.	.1666667E+02
		0.	0.	0.	.5499000E+00	-.3645000E+050	0.

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER						
25	1	.7701883E+01	.3850941E+03	.5000000E+02	.9874209E+02	.1974842E+01	.2567294E+010
		.3333333E+000		.2500000E+04	.1925471E+050	0.	.1822500E+07
		.6582806E+000	0.	0.	.5614673E+040	0.	.1666667E+02
		0.	0.	0.	.5549000E+00	-.3645000E+050	0.
26	1	0.	0.	.5000000E+020	0.	0.	0.
		.3162278E+000		.2500000E+040	0.	0.	.1000000E+04
		0.	0.	0.	0.	0.	.2500000E+07
		0.	0.	0.	.3320000E+00	-.5000000E+050	.1581139E+02
27	1	.2923369E+00	.1461685E+02	.5000000E+02	.3318419E+02	.5636838E+00	.9244505E+010
		.3162278E+000		.2500000E+04	.7308423E+030	0.	.1000000E+04
		.2098752E+000	0.	0.	.2923369E+030	0.	.2500000E+07
		0.	0.	0.	.3515000E+00	-.5000000E+050	.1581139E+02
28	1	.1000000E+01	.5000000E+02	.5000000E+02	.5000000E+02	.1000000E+01	.3162278E+000
		.3162278E+000		.2500000E+04	.1000000E+040	0.	.1000000E+04
		.3162278E+000	0.	0.	.1000000E+040	0.	.2500000E+07
		0.	0.	0.	.3814000E+00	-.5000000E+050	.1581139E+02
29	1	.1837117E+01	.9185587E+02	.5000000E+02	.6123724E+02	.1224745E+01	.5809475E+000
		.3162278E+000		.2500000E+04	.4592793E+040	0.	.1000000E+04
		.3872983E+000	0.	0.	.1837117E+040	0.	.2500000E+07
		0.	0.	0.	.4114000E+00	-.5000000E+050	.1581139E+02
30	1	.2828427E+01	.1414214E+03	.5000000E+02	.7071068E+02	.1414214E+01	.8944272E+000
		.3162278E+000		.2500000E+04	.7071068E+040	0.	.1000000E+04
		.4472136E+000	0.	0.	.2828427E+040	0.	.2500000E+07
		0.	0.	0.	.4406000E+00	-.5000000E+050	.1581139E+02
31	1	.3938738E+01	.1988369E+03	.5000000E+02	.7896277E+02	.1579255E+01	.1245538E+010
		.3162278E+000		.2500000E+04	.9846845E+040	0.	.1000000E+04
		.4994044E+000	0.	0.	.3938738E+040	0.	.2500000E+07
		0.	0.	0.	.4730000E+00	-.5000000E+050	.1581139E+02
32	1	.5196152E+01	.2598076E+03	.5000000E+02	.8660254E+02	.1732051E+01	.1643168E+010
		.3162278E+000		.2500000E+04	.1299038E+050	0.	.1000000E+04
		.5477226E+000	0.	0.	.5196152E+040	0.	.2500000E+07
		0.	0.	0.	.5128000E+00	-.5000000E+050	.1581139E+02

FRIDAY, JUL 2, 1976

CASE NUMBER	33			GROUP NUMBER	1		
.6547900E+01-	3273950E+03-	.5000000E+02-	.9354143E+02	.1870829E+01	.2070628E+010.		.1000000E+04
.3162278E+000.		.2500000E+04	.1636975E+050.	0.		.2500000E+07-	.1581139E+02
.5916080E+000.	0.	0.	.6547900E+040.	-	.5000000E+050.	0.	0.
0.	0.	0.	.5499000E+00				
CASE NUMBER	34			GROUP NUMBER	1		
.6830520E+01-	3415260E+03-	.5000000E+02-	.9486833E+02	.1897367E+01	.2160000E+010.		.1000000E+04
.3162278E+000.		.2500000E+04	.1707630E+050.	0.		.2500000E+07-	.1581139E+02
.6000000E+000.	0.	0.	.6830520E+040.	-	.5000000E+050.	0.	0.
0.	0.	0.	.5510000E+00				
CASE NUMBER	35			GROUP NUMBER	1		
.7117092E+01-	355846E+03-	.5000000E+02-	.9617692E+02	.1923538E+01	.2250622E+010.		.1000000E+04
.3162278E+000.		.2500000E+04	.1779273E+050.	0.		.2500000E+07-	.1581139E+02
.6082763E+000.	0.	0.	.7117092E+040.	-	.5000000E+050.	0.	0.
0.	0.	0.	.5561000E+00				
CASE NUMBER	36			GROUP NUMBER	1		
0.	0.	-.5000000E+020.	0.	0.	0.		.1728000E+04
.2886751E+000.		.2500000E+040.	0.	0.		.4320000E+07-	.1443376E+02
0.	0.	0.	0.	-	.8640000E+050.	0.	0.
0.	0.	0.	.3453000E+00				
CASE NUMBER	37			GROUP NUMBER	1		
.3535534E+00-	1767767E+02-	.5000000E+02-	.3535534E+02	.7071068E+00	.1020621E+000.		.1728000E+04
.2886751E+000.		.2500000E+04	.8838835E+030.	0.		.4320000E+07-	.1443376E+02
.2041241E+000.	0.	0.	.6109403E+030.	-	.8640000E+050.	0.	0.
0.	0.	0.	.3728000E+00				
CASE NUMBER	38			GROUP NUMBER	1		
.1000000E+01-	.5000000E+02-	.5000000E+02-	.5000000E+02	.1000000E+01	.2886751E+000.		.1728000E+04
.2886751E+000.		.2500000E+04	.2500000E+040.	0.		.4320000E+07-	.1443376E+02
.2886751E+000.	0.	0.	.1728000E+040.	-	.8640000E+050.	0.	0.
0.	0.	0.	.4011000E+00				
CASE NUMBER	39			GROUP NUMBER	1		
.1837117E+01-	.9185587E+02-	.5000000E+02-	.6123724E+02	.1224745E+01	.5303301E+000.		.1728000E+04
.2886751E+000.		.2500000E+04	.4592793E+040.	0.		.4320000E+07-	.1443376E+02
.3535534E+000.	0.	0.	.3174539E+040.	-	.8640000E+050.	0.	0.
0.	0.	0.	.4282000E+00				
CASE NUMBER	40			GROUP NUMBER	1		
.288427E+01-	.1414214E+03-	.5000000E+02-	.7071068E+02	.1414214E+01	.8164966E+000.		.1728000E+04
.2886751E+000.		.2500000E+04	.7071068E+040.	0.		.4320000E+07-	.1443376E+02
.4082483E+000.	0.	0.	.4887522E+040.	-	.8640000E+050.	0.	0.
0.	0.	0.	.4588000E+00				

FRIDAY, JUL 2, 1976

CASE NUMBER	41				GROUP NUMBER	1		
.3952847E+01-	1976424E+03-	.5000000E+02-	.7905594E+02	.1581139E+01	.1141089E+010.		.1728000E+04	
.2886751E+000.		.2500000E+04	.9882118E+040.	0.		.4320000E+07-	.1443376E+02	
.4564355E+000.	0.	0.	.6830520E+040.	-	.8640000E+050.	0.	0.	
0.	0.	0.	.4941000E+00					
CASE NUMBER	42				GROUP NUMBER	1		
.5196152E+01-	2598076E+03-	.5000000E+02-	.8660254E+02	.1732051E+01	.1500000E+010.		.1728000E+04	
.2886751E+000.		.2500000E+04	.1299038E+050.	0.		.4320000E+07-	.1443376E+02	
.5000000E+000.	0.	0.	.8978951E+040.	-	.8640000E+050.	0.	0.	
0.	0.	0.	.5441000E+00					
CASE NUMBER	43				GROUP NUMBER	1		
.5458113E+01-	2729057E+03-	.5000000E+02-	.8803408E+02	.1760682E+01	.1575622E+010.		.1728000E+04	
.2886751E+000.		.2500000E+04	.1364528E+050.	0.		.4320000E+07-	.1443376E+02	
.5082650E+000.	0.	0.	.9431620E+040.	-	.8640000E+050.	0.	0.	
0.	0.	0.	.5490000E+00					
CASE NUMBER	44				GROUP NUMBER	1		
.5724334E+01-	2862167E+03-	.5000000E+02-	.8944272E+02	.1788854E+01	.1652473E+010.		.1728000E+04	
.2886751E+000.		.2500000E+04	.1431084E+050.	0.		.4320000E+07-	.1443376E+02	
.5163978E+000.	0.	0.	.9891649E+040.	-	.8640000E+050.	0.	0.	
0.	0.	0.	.5503000E+00					
CASE NUMBER	45				GROUP NUMBER	1		
0.	0.	.5000000E+020.	0.	0.	0.		.3048625E+04	
.2626129E+000.		.2500000E+040.	0.	0.	0.	.7621562E+07-	.1313064E+02	
0.	0.	0.	0.	0.	-	.1524313E+060.	0.	
0.	0.	0.	.3618000E+00					
CASE NUMBER	46				GROUP NUMBER	1		
.3598856E+00-	1799428E+02-	.5000000E+02-	.3556517E+02	.7113033E+00	.9451059E+010.		.3048625E+04	
.2626129E+000.		.2500000E+04	.8997140E+030.	0.		.7621562E+07-	.1313064E+02	
.1867974E+000.	0.	0.	.1097156E+040.	-	.1524313E+060.	0.	0.	
0.	0.	0.	.3895000E+00					
CASE NUMBER	47				GROUP NUMBER	1		
.1063147E+01-	5315733E+02-	.5000000E+02-	.5103104E+02	.1020621E+01	.2791960E+000.		.3048625E+04	
.2626129E+000.		.2500000E+04	.2657867E+040.	0.		.7621562E+07-	.1313064E+02	
.2680281E+000.	0.	0.	.3241135E+040.	-	.1524313E+060.	0.	0.	
0.	0.	0.	.4200000E+00					
CASE NUMBER	48				GROUP NUMBER	1		
.1696809E+01-	8484044E+02-	.5000000E+02-	.5963680E+02	.1192736E+01	.4456038E+000.		.3048625E+04	
.2626129E+000.		.2500000E+04	.4242022E+040.	0.		.7621562E+07-	.1313064E+02	
.3132278E+000.	0.	0.	.5172934E+040.	-	.1524313E+060.	0.	0.	
0.	0.	0.	.4440000E+00					

FRIDAY, JUL 2, 1976

FRIDAY, JUL 2, 1976

A - 83



FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER 81	0.	0.	GROUP NUMBER 1	0.	1000000E+04
.5458113E+010.	0.	0.	.1760682E+01	0.	0.
.3162278E+000.	0.	0.	.5458113E+040.	0.	0.
.5567764E+000.	0.	0.	.4802000E+00	0.	0.
0.	0.	0.			
CASE NUMBER 82	0.	0.	GROUP NUMBER 1	0.	1000000E+04
.5724334E+010.	0.	0.	.1788854E+01	0.	0.
.3162278E+000.	0.	0.	.1810193E+010.	0.	0.
.5656854E+000.	0.	0.	.5724334E+040.	0.	0.
0.	0.	0.	.4891000E+00	0.	0.
CASE NUMBER 83	0.	0.	GROUP NUMBER 1	0.	1000000E+04
.5994748E+010.	0.	0.	.1816590E+01	0.	0.
.3162278E+000.	0.	0.	.1895706E+010.	0.	0.
.5744563E+000.	0.	0.	.5994748E+040.	0.	0.
0.	0.	0.	.4979000E+00	0.	0.
CASE NUMBER 84	0.	0.	GROUP NUMBER 1	0.	1000000E+04
.6269290E+010.	0.	0.	.1843909E+01	0.	0.
.3162278E+000.	0.	0.	.1982524E+010.	0.	0.
.5830952E+000.	0.	0.	.6269290E+040.	0.	0.
0.	0.	0.	.5061000E+00	0.	0.
CASE NUMBER 85	0.	0.	GROUP NUMBER 1	0.	1000000E+04
.6547900E+010.	0.	0.	.1870829E+01	0.	0.
.3162278E+000.	0.	0.	.2070628E+010.	0.	0.
.5916080E+000.	0.	0.	.6547900E+040.	0.	0.
0.	0.	0.	.5132000E+00	0.	0.
CASE NUMBER 86	0.	0.	GROUP NUMBER 1	0.	1728000E+04
.1298922E+020.	0.	0.	.1091091E+00	0.	0.
.2886751E+000.	0.	0.	.3749666E+030.	0.	0.
.3149709E+010.	0.	0.	.2244538E+010.	0.	0.
0.	0.	0.	.3260000E+00	0.	0.
CASE NUMBER 87	0.	0.	GROUP NUMBER 1	0.	1728000E+04
.3535534E+000.	0.	0.	.7071068E+00	0.	0.
.2886751E+000.	0.	0.	.1020621E+000.	0.	0.
.2041241E+000.	0.	0.	.6109403E+030.	0.	0.
0.	0.	0.	.3472000E+00	0.	0.
CASE NUMBER 88	0.	0.	GROUP NUMBER 1	0.	1728000E+04
.1000000E+010.	0.	0.	.1000000E+01	0.	0.
.2886751E+000.	0.	0.	.2886751E+000.	0.	0.
.2886751E+000.	0.	0.	.1728000E+040.	0.	0.
0.	0.	0.	.3727000E+00	0.	0.

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER 89	0.	0.	GROUP NUMBER 1	0.	1728000E+04
.1837117E+010.	0.	0.	.1224745E+01	0.	0.
.2886751E+000.	0.	0.	.5303301E+000.	0.	0.
.3535534E+000.	0.	0.	.3174539E+040.	0.	0.
0.	0.	0.	.3997000E+00	0.	0.
CASE NUMBER 90	0.	0.	GROUP NUMBER 1	0.	1728000E+04
.2828427E+010.	0.	0.	.1414214E+01	0.	0.
.2886751E+000.	0.	0.	.8164966E+000.	0.	0.
.4082483E+000.	0.	0.	.4887522E+040.	0.	0.
0.	0.	0.	.4267000E+00	0.	0.
CASE NUMBER 91	0.	0.	GROUP NUMBER 1	0.	1728000E+04
.3952847E+010.	0.	0.	.1581139E+01	0.	0.
.2886751E+000.	0.	0.	.1141089E+010.	0.	0.
.4564355E+000.	0.	0.	.6830520E+040.	0.	0.
0.	0.	0.	.4596000E+00	0.	0.
CASE NUMBER 92	0.	0.	GROUP NUMBER 1	0.	1728000E+04
.4192374E+010.	0.	0.	.1612452E+01	0.	0.
.2886751E+000.	0.	0.	.1210234E+010.	0.	0.
.4654747E+000.	0.	0.	.7244422E+040.	0.	0.
0.	0.	0.	.4670000E+00	0.	0.
CASE NUMBER 93	0.	0.	GROUP NUMBER 1	0.	1728000E+04
.4436553E+010.	0.	0.	.1643168E+01	0.	0.
.2886751E+000.	0.	0.	.1280722E+010.	0.	0.
.4743416E+000.	0.	0.	.7666363E+040.	0.	0.
0.	0.	0.	.4741000E+00	0.	0.
CASE NUMBER 94	0.	0.	GROUP NUMBER 1	0.	1728000E+04
.4685296E+010.	0.	0.	.1673320E+01	0.	0.
.2886751E+000.	0.	0.	.1352528E+010.	0.	0.
.4830459E+000.	0.	0.	.8096192E+040.	0.	0.
0.	0.	0.	.4822000E+00	0.	0.
CASE NUMBER 95	0.	0.	GROUP NUMBER 1	0.	1728000E+04
.4938522E+010.	0.	0.	.1702939E+01	0.	0.
.2886751E+000.	0.	0.	.1425629E+010.	0.	0.
.4915960E+000.	0.	0.	.8533766E+040.	0.	0.
0.	0.	0.	.4912000E+00	0.	0.
CASE NUMBER 96	0.	0.	GROUP NUMBER 1	0.	1728000E+04
.5196152E+010.	0.	0.	.1732051E+01	0.	0.
.2886751E+000.	0.	0.	.1500000E+010.	0.	0.
.5000000E+000.	0.	0.	.8978951E+040.	0.	0.
0.	0.	0.	.5012000E+00	0.	0.

FRIDAY, JUL 2, 1976

FRIDAY, JUL 2, 1976

**A - 86**

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	113			GROUP NUMBER	1	
.6547900E+01	.6547900E+03	.1000000E+03	.1870829E+03	.1870829E+01	.2474874E+010	.3430000E+03
.3779645E+000		.1000000E+05	.6547900E+050			.3430000E+07
.7071068E+000			.2245830E+040			.3779645E+02
0.	0.	0.	.4186000E+00			0.
CASE NUMBER	114			GROUP NUMBER	1	
.6830520E+01	.6830520E+03	.1000000E+03	.1897367E+03	.1897367E+01	.2581694E+010	.3430000E+03
.3779645E+000		.1000000E+05	.6830520E+050			.3430000E+07
.7171372E+000			.2342868E+040			.3779645E+02
0.	0.	0.	.4238000E+00			0.
CASE NUMBER	115			GROUP NUMBER	1	
.7117092E+01	.7117092E+03	.1000000E+03	.1923538E+03	.1923538E+01	.2690008E+010	.3430000E+03
.3779645E+000		.1000000E+05	.7117092E+050			.3430000E+07
.7270292E+000			.2441163E+040			.3779645E+02
0.	0.	0.	.4294000E+00			0.
CASE NUMBER	116			GROUP NUMBER	1	
.7407564E+01	.7407564E+03	.1000000E+03	.1949359E+03	.1949359E+01	.2799796E+010	.3430000E+03
.3779645E+000		.1000000E+05	.7407564E+050			.3430000E+07
.7367884E+000			.2540794E+040			.3779645E+02
0.	0.	0.	.4352000E+00			0.
CASE NUMBER	117			GROUP NUMBER	1	
.7701883E+01	.7701883E+03	.1000000E+03	.1974842E+03	.1974842E+01	.2911038E+010	.3430000E+03
.3779645E+000		.1000000E+05	.7701883E+050			.3430000E+07
.7464200E+000			.2641746E+040			.3779645E+02
0.	0.	0.	.4411000E+00			0.
CASE NUMBER	118			GROUP NUMBER	1	
.8000000E+01	.8000000E+03	.1000000E+03	.2000000E+03	.2000000E+01	.3023716E+010	.3430000E+03
.3779645E+000		.1000000E+05	.8000000E+050			.3430000E+07
.7559289E+000			.2744000E+040			.3779645E+02
0.	0.	0.	.4473000E+00			0.
CASE NUMBER	119			GROUP NUMBER	1	
.3333333E+000		.1000000E+030				.7290000E+03
0.	0.	.1000000E+050				.7290000E+07
0.	0.	0.				.3333333E+02
0.	0.	0.	.2784000E+00			0.
CASE NUMBER	120			GROUP NUMBER	1	
.3535534E+01	.3535534E+03	.1000000E+03	.7071068E+03	.7071068E+01	.1178511E+010	.7290000E+03
.3333333E+000		.1000000E+05	.3535534E+050			.7290000E+07
.2357023E+000			.2577404E+040			.3333333E+02
0.	0.	0.	.3000000E+00			0.

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	121			GROUP NUMBER	1	
.1000000E+01	.1000000E+03	.1000000E+03	.1000000E+03	.1000000E+01	.3333333E+000	.7290000E+03
.3333333E+000		.1000000E+05	.1000000E+050			.7290000E+07
.3333333E+000			.7290000E+030			.3333333E+02
0.	0.	0.	.3168000E+00			0.
CASE NUMBER	122			GROUP NUMBER	1	
.1837117E+01	.1837117E+03	.1000000E+03	.1224745E+03	.1224745E+01	.6123724E+010	.7290000E+03
.3333333E+000		.1000000E+05	.1837117E+050			.7290000E+07
.4082483E+000			.1339259E+040			.3333333E+02
0.	0.	0.	.3363000E+00			0.
CASE NUMBER	123			GROUP NUMBER	1	
.2828427E+01	.2828427E+03	.1000000E+03	.1414214E+03	.1414214E+01	.9428090E+010	.7290000E+03
.3333333E+000		.1000000E+05	.2828427E+050			.7290000E+07
.4714045E+000			.2061923E+040			.3333333E+02
0.	0.	0.	.3584000E+00			0.
CASE NUMBER	124			GROUP NUMBER	1	
.3952847E+01	.3952847E+03	.1000000E+03	.1581139E+03	.1581139E+01	.1317616E+010	.7290000E+03
.3333333E+000		.1000000E+05	.3952847E+050			.7290000E+07
.5270463E+000			.2881626E+040			.3333333E+02
0.	0.	0.	.3838000E+00			0.
CASE NUMBER	125			GROUP NUMBER	1	
.5196152E+01	.5196152E+03	.1000000E+03	.1732051E+03	.1732051E+01	.1732051E+010	.7290000E+03
.3333333E+000		.1000000E+05	.5196152E+050			.7290000E+07
.5773503E+000			.3787995E+040			.3333333E+02
0.	0.	0.	.4138000E+00			0.
CASE NUMBER	126			GROUP NUMBER	1	
.5458113E+01	.5458113E+03	.1000000E+03	.1760682E+03	.1760682E+01	.1819371E+010	.7290000E+03
.3333333E+000		.1000000E+05	.5458113E+050			.7290000E+07
.5868939E+000			.3978965E+040			.3333333E+02
0.	0.	0.	.4205000E+00			0.
CASE NUMBER	127			GROUP NUMBER	1	
.5724334E+01	.5724334E+03	.1000000E+03	.1788854E+03	.1788854E+01	.1908111E+010	.7290000E+03
.3333333E+000		.1000000E+05	.5724334E+050			.7290000E+07
.5962848E+000			.4173040E+040			.3333333E+02
0.	0.	0.	.4271000E+00			0.
CASE NUMBER	128			GROUP NUMBER	1	
.5994748E+01	.5994748E+03	.1000000E+03	.1816590E+03	.1816590E+01	.1998249E+010	.7290000E+03
.3333333E+000		.1000000E+05	.5994748E+050			.7290000E+07
.6055301E+000			.4370171E+040			.3333333E+02
0.	0.	0.	.4338000E+00			0.

FRIDAY, JUL 2, 1976

FRIDAY, JUL 2, 1976

**A - 88**

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
145	1	1728000E+04	2886751E+02	1728000E+06	1728000E+08	1728000E+10	1728000E+12	1728000E+14	1728000E+16	1728000E+18	1728000E+20	1728000E+22	1728000E+24	1728000E+26	1728000E+28	1728000E+30	1728000E+32	1728000E+34	1728000E+36	1728000E+38	1728000E+40	1728000E+42	1728000E+44	1728000E+46	1728000E+48	1728000E+50	1728000E+52	1728000E+54	1728000E+56	1728000E+58	1728000E+60	1728000E+62	1728000E+64	1728000E+66	1728000E+68	1728000E+70	1728000E+72	1728000E+74	1728000E+76	1728000E+78	1728000E+80	1728000E+82	1728000E+84	1728000E+86	1728000E+88	1728000E+90	1728000E+92	1728000E+94	1728000E+96	1728000E+98	1728000E+100	1728000E+102	1728000E+104	1728000E+106	1728000E+108	1728000E+110	1728000E+112	1728000E+114	1728000E+116	1728000E+118	1728000E+120	1728000E+122	1728000E+124	1728000E+126	1728000E+128	1728000E+130	1728000E+132	1728000E+134	1728000E+136	1728000E+138	1728000E+140	1728000E+142	1728000E+144	1728000E+146	1728000E+148	1728000E+150	1728000E+152	1728000E+154	1728000E+156	1728000E+158	1728000E+160	1728000E+162	1728000E+164	1728000E+166	1728000E+168	1728000E+170	1728000E+172	1728000E+174	1728000E+176	1728000E+178	1728000E+180	1728000E+182	1728000E+184	1728000E+186	1728000E+188	1728000E+190	1728000E+192	1728000E+194	1728000E+196	1728000E+198	1728000E+200

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
153	1	3048625E+04	2626129E+02	3048625E+06	3048625E+08	3048625E+10	3048625E+12	3048625E+14	3048625E+16	3048625E+18	3048625E+20	3048625E+22	3048625E+24	3048625E+26	3048625E+28	3048625E+30	3048625E+32	3048625E+34	3048625E+36	3048625E+38	3048625E+40	3048625E+42	3048625E+44	3048625E+46	3048625E+48	3048625E+50	3048625E+52	3048625E+54	3048625E+56	3048625E+58	3048625E+60	3048625E+62	3048625E+64	3048625E+66	3048625E+68	3048625E+70	3048625E+72	3048625E+74	3048625E+76	3048625E+78	3048625E+80	3048625E+82	3048625E+84	3048625E+86	3048625E+88	3048625E+90	3048625E+92	3048625E+94	3048625E+96	3048625E+98	3048625E+100	3048625E+102	3048625E+104	3048625E+106	3048625E+108	3048625E+110	3048625E+112	3048625E+114	3048625E+116	3048625E+118	3048625E+120	3048625E+122	3048625E+124	3048625E+126	3048625E+128	3048625E+130	3048625E+132	3048625E+134	3048625E+136	3048625E+138	3048625E+140	3048625E+142	3048625E+144	3048625E+146	3048625E+148	3048625E+150	3048625E+152	3048625E+154	3048625E+156	3048625E+158	3048625E+160	3048625E+162	3048625E+164	3048625E+166	3048625E+168	3048625E+170	3048625E+172	3048625E+174	3048625E+176	3048625E+178	3048625E+180	3048625E+182	3048625E+184	3048625E+186	3048625E+188	3048625E+190	3048625E+192	3048625E+194	3048625E+196	3048625E+198	3048625E+200

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	161			GROUP NUMBER	1	
.6547900E+01	.1309580E+04	.2000000E+03	.3741657E+03	.1870829E+01	.2474874E+010	.3430000E+03
.3779645E+000		.4000000E+05	.2619160E+060	0.	0.	.1372000E+08
.7071068E+000	0.	0.	.2245930E+040		.6860000E+050	0.
0.	0.	0.	.3858000E+00			
CASE NUMBER	162			GROUP NUMBER	1	
.6830520E+01	.1366104E+04	.2000000E+03	.3794733E+03	.1897367E+01	.2581694E+010	.3430000E+03
.3779645E+000		.4000000E+05	.2732208E+060	0.	0.	.1372000E+08
.7171372E+000	0.	0.	.2342868E+040		.6860000E+050	0.
0.	0.	0.	.3908000E+00			
CASE NUMBER	163			GROUP NUMBER	1	
.7117092E+01	.1423418E+04	.2000000E+03	.3847077E+03	.1923538E+01	.2690008E+010	.3430000E+03
.3779645E+000		.4000000E+05	.2846837E+060	0.	0.	.1372000E+08
.7270292E+000	0.	0.	.2441163E+040		.6860000E+050	0.
0.	0.	0.	.3962000E+00			
CASE NUMBER	164			GROUP NUMBER	1	
.7407564E+01	.1481513E+04	.2000000E+03	.3898718E+03	.1949359E+01	.2799796E+010	.3430000E+03
.3779645E+000		.4000000E+05	.2963025E+060	0.	0.	.1372000E+08
.7367884E+000	0.	0.	.2540794E+040		.6860000E+050	0.
0.	0.	0.	.4019000E+00			
CASE NUMBER	165			GROUP NUMBER	1	
0.	0.	.2000000E+030	0.	0.	0.	.7290000E+03
.3333333E+000		.4000000E+050	0.	0.	0.	.2916000E+08
0.	0.	0.	0.		.1458000E+060	0.
0.	0.	0.	.2585000E+00			
CASE NUMBER	166			GROUP NUMBER	1	
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03	.7071068E+00	.1178511E+000	.7290000E+03
.3333333E+000		.4000000E+05	.1414214E+050	0.	0.	.2916000E+08
.2357023E+000	0.	0.	.2577404E+030		.1458000E+060	0.
0.	0.	0.	.2734000E+00			
CASE NUMBER	167			GROUP NUMBER	1	
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03	.1000000E+01	.3333333E+000	.7290000E+03
.3333333E+000		.4000000E+05	.4000000E+050	0.	0.	.2916000E+08
.3333333E+000	0.	0.	.7290000E+030		.1458000E+060	0.
0.	0.	0.	.2897000E+00			
CASE NUMBER	168			GROUP NUMBER	1	
.1837117E+01	.3674235E+03	.2000000E+03	.2448480E+03	.1224745E+01	.6123724E+000	.7290000E+03
.3333333E+000		.4000000E+05	.7348469E+060	0.	0.	.2916000E+08
.4082483E+000	0.	0.	.1339259E+040		.1458000E+060	0.
0.	0.	0.	.3083000E+00			

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	169			GROUP NUMBER	1	
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03	.1414214E+01	.9428090E+000	.7290000E+03
.3333333E+000		.4000000E+05	.1131371E+060	0.	0.	.2916000E+08
.4714045E+000	0.	0.	.2061923E+040		.1458000E+060	0.
0.	0.	0.	.3298000E+00			
CASE NUMBER	170			GROUP NUMBER	1	
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03	.1581139E+01	.1317616E+010	.7290000E+03
.3333333E+000		.4000000E+05	.1581139E+060	0.	0.	.2916000E+08
.5270463E+000	0.	0.	.2881626E+040		.1458000E+060	0.
0.	0.	0.	.3539000E+00			
CASE NUMBER	171			GROUP NUMBER	1	
.5196152E+01	.1039230E+04	.2000000E+03	.3464102E+03	.1732051E+01	.1732051E+010	.7290000E+03
.3333333E+000		.4000000E+05	.2078461E+060	0.	0.	.2916000E+08
.5773503E+000	0.	0.	.3787995E+040		.1458000E+060	0.
0.	0.	0.	.3822000E+00			
CASE NUMBER	172			GROUP NUMBER	1	
.5458113E+01	.1091623E+04	.2000000E+03	.3521363E+03	.1760682E+01	.1819371E+010	.7290000E+03
.3333333E+000		.4000000E+05	.2183245E+060	0.	0.	.2916000E+08
.5868939E+000	0.	0.	.3978965E+040		.1458000E+060	0.
0.	0.	0.	.3884000E+00			
CASE NUMBER	173			GROUP NUMBER	1	
.5724334E+01	.1144867E+04	.2000000E+03	.3577709E+03	.1788854E+01	.1908111E+010	.7290000E+03
.3333333E+000		.4000000E+05	.2289734E+060	0.	0.	.2916000E+08
.5962848E+000	0.	0.	.4173040E+040		.1458000E+060	0.
0.	0.	0.	.3948000E+00			
CASE NUMBER	174			GROUP NUMBER	1	
0.	0.	.2000000E+030	0.	0.	0.	.1000000E+04
.3162278E+000		.4000000E+050	0.	0.	0.	.4000000E+08
0.	0.	0.	0.		.2000000E+060	0.
0.	0.	0.	.2619000E+00			
CASE NUMBER	175			GROUP NUMBER	1	
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03	.7071068E+00	.1118034E+000	.1000000E+04
.3162278E+000		.4000000E+05	.1414214E+050	0.	0.	.4000000E+08
.2236068E+000	0.	0.	.3535534E+030		.2000000E+060	0.
0.	0.	0.	.2783000E+00			
CASE NUMBER	176			GROUP NUMBER	1	
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03	.1000000E+01	.3162278E+000	.1000000E+04
.3162278E+000		.4000000E+05	.4000000E+050	0.	0.	.4000000E+08
.3162278E+000	0.	0.	.1000000E+040		.2000000E+060	0.
0.	0.	0.	.2956000E+00			

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	177			GROUP NUMBER	1	
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03	.1224745E+01	.5809475E+000	.1000000E+04
.3162278E+000		.4000000E+05	.7348469E+050			.6324555E+02
.3872983E+000			.1837117E+040		.2000000E+060	
0.	0.	0.	.3160000E+00			
CASE NUMBER	178			GROUP NUMBER	1	
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03	.1414214E+01	.8944272E+000	.1000000E+04
.3162278E+000		.4000000E+05	.1131371E+060			.6324555E+02
.4472136E+000			.2828427E+040		.2000000E+060	
0.	0.	0.	.3382000E+00			
CASE NUMBER	179			GROUP NUMBER	1	
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03	.1581139E+01	.1250000E+010	.1000000E+04
.3162278E+000		.4000000E+05	.1581139E+060			.6324555E+02
.5000000E+000			.3952847E+040		.2000000E+060	
0.	0.	0.	.3639000E+00			
CASE NUMBER	180			GROUP NUMBER	1	
.4192374E+01	.8384748E+03	.2000000E+03	.3224903E+03	.1612452E+01	.1325745E+010	.1000000E+04
.3162278E+000		.4000000E+05	.1676950E+060			.6324555E+02
.5099020E+000			.4192374E+040		.2000000E+060	
0.	0.	0.	.3696000E+00			
CASE NUMBER	181			GROUP NUMBER	1	
.4436553E+01	.8873105E+03	.2000000E+03	.3286335E+03	.1643168E+01	.1402961E+010	.1000000E+04
.3162278E+000		.4000000E+05	.1774621E+060			.6324555E+02
.5196152E+000			.4436553E+040		.2000000E+060	
0.	0.	0.	.3754000E+00			
CASE NUMBER	182			GROUP NUMBER	1	
.4685296E+01	.9370592E+03	.2000000E+03	.3346640E+03	.1673320E+01	.1481621E+010	.1000000E+04
.3162278E+000		.4000000E+05	.1874118E+060			.6324555E+02
.5291503E+000			.4685296E+040		.2000000E+060	
0.	0.	0.	.3815000E+00			
CASE NUMBER	183			GROUP NUMBER	1	
.4938522E+01	.9877044E+03	.2000000E+03	.3405877E+03	.1702939E+01	.1561698E+010	.1000000E+04
.3162278E+000		.4000000E+05	.1975409E+060			.6324555E+02
.5385165E+000			.4938522E+040		.2000000E+060	
0.	0.	0.	.3878000E+00			
CASE NUMBER	184			GROUP NUMBER	1	
.2886751E+000		.2000000E+030				.1728000E+04
0.	0.	.4000000E+050			.6912000E+08	.5773503E+02
0.	0.	0.		.3456000E+060		
0.	0.	0.	.2691000E+00			

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	185			GROUP NUMBER	1	
.3535534E+01	.7071068E+02	.2000000E+03	.1414214E+03	.7071068E+00	.1020621E+000	.1728000E+04
.2886751E+000		.4000000E+05	.1414214E+050			.5773503E+02
.2041241E+000			.6109403E+030		.3456000E+060	
0.	0.	0.	.2887000E+00			
CASE NUMBER	186			GROUP NUMBER	1	
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03	.1000000E+01	.2886751E+000	.1728000E+04
.2886751E+000		.4000000E+05	.4000000E+050			.5773503E+02
.2886751E+000			.1728000E+040		.3456000E+060	
0.	0.	0.	.3083000E+00			
CASE NUMBER	187			GROUP NUMBER	1	
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03	.1224745E+01	.5303301E+000	.1728000E+04
.2886751E+000		.4000000E+05	.7348469E+050			.5773503E+02
.3535534E+000			.3174539E+040		.3456000E+060	
0.	0.	0.	.3304000E+00			
CASE NUMBER	188			GROUP NUMBER	1	
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03	.1414214E+01	.8164966E+000	.1728000E+04
.2886751E+000		.4000000E+05	.1131371E+060			.5773503E+02
.4082483E+000			.4887522E+040		.3456000E+060	
0.	0.	0.	.3550000E+00			
CASE NUMBER	189			GROUP NUMBER	1	
.3043189E+01	.6086378E+03	.2000000E+03	.2898275E+03	.1449138E+01	.8784930E+000	.1728000E+04
.2886751E+000		.4000000E+05	.1217276E+060			.5773503E+02
.4183300E+000			.5258631E+040		.3456000E+060	
0.	0.	0.	.3605000E+00			
CASE NUMBER	190			GROUP NUMBER	1	
.3263127E+01	.6526255E+03	.2000000E+03	.2986479E+03	.1483240E+01	.9419837E+000	.1728000E+04
.2886751E+000		.4000000E+05	.1305251E+060			.5773503E+02
.4281744E+000			.5638684E+040		.3456000E+060	
0.	0.	0.	.3681000E+00			
CASE NUMBER	191			GROUP NUMBER	1	
.3488123E+01	.6976245E+03	.2000000E+03	.3033150E+03	.1516575E+01	.1006934E+010	.1728000E+04
.2886751E+000		.4000000E+05	.1395249E+060			.5773503E+02
.4377975E+000			.6027476E+040		.3456000E+060	
0.	0.	0.	.3719000E+00			
CASE NUMBER	192			GROUP NUMBER	1	
.3718064E+01	.7436128E+03	.2000000E+03	.3098387E+03	.1549193E+01	.1073313E+010	.1728000E+04
.2886751E+000		.4000000E+05	.1487226E+060			.5773503E+02
.4472136E+000			.6424815E+040		.3456000E+060	
0.	0.	0.	.3779000E+00			

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER	1	2
1707467E-02 .3414934E+00 .2000000E+03 .2390456E+02 .1195228E+00 .4484028E-030 .3048625E+04	1	1	1
.2626129E+000 .4000000E+05 .6829888E+020 .0 .1219450E+09 .5252257E+02	1	1	1
.3138823E-010 .0 .5205426E+010 .6097250E+060 .0 .0	1	1	1
0 .0 .2821000E+00 .0 .0 .0	1	1	1
CASE NUMBER 194	GROUP NUMBER 1	1	1
.3535534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .9284767E-010 .3048625E+04	1	1	1
.2626129E+000 .4000000E+05 .1414214E+050 .0 .1219450E+09 .5252257E+02	1	1	1
.1856953E+000 .0 .1077852E+040 .6097250E+060 .0 .0	1	1	1
0 .0 .3033000E+00 .0 .0 .0	1	1	1
CASE NUMBER 195	GROUP NUMBER 1	1	1
.1000000E+01 .2000000E+03 .2000000E+03 .2000000E+03 .1000000E+01 .2626129E+000 .3048625E+04	1	1	1
.2626129E+000 .4000000E+05 .4000000E+050 .0 .1219450E+09 .5252257E+02	1	1	1
.2626129E+000 .0 .3048625E+040 .6097250E+060 .0 .0	1	1	1
0 .0 .3236000E+00 .0 .0 .0	1	1	1
CASE NUMBER 196	GROUP NUMBER 1	1	1
.1837117E+01 .3674235E+03 .2000000E+03 .2449490E+03 .1224745E+01 .4824506E+000 .3048625E+04	1	1	1
.2626129E+000 .4000000E+05 .7348469E+050 .0 .1219450E+09 .5252257E+02	1	1	1
.3216338E+000 .0 .5600582E+040 .6097250E+060 .0 .0	1	1	1
0 .0 .3477000E+00 .0 .0 .0	1	1	1
CASE NUMBER 197	GROUP NUMBER 1	1	1
.2023858E+01 .4047715E+03 .2000000E+03 .2529822E+03 .1264911E+01 .5314911E+000 .3048625E+04	1	1	1
.2626129E+000 .4000000E+05 .8095431E+050 .0 .1219450E+09 .5252257E+02	1	1	1
.3221819E+000 .0 .6169983E+040 .6097250E+060 .0 .0	1	1	1
0 .0 .3529000E+00 .0 .0 .0	1	1	1
CASE NUMBER 198	GROUP NUMBER 1	1	1
.2216529E+01 .4433058E+03 .2000000E+03 .2607681E+03 .1303840E+01 .5820890E+000 .3048625E+04	1	1	1
.2626129E+000 .4000000E+05 .8866115E+050 .0 .1219450E+09 .5252257E+02	1	1	1
.3424053E+000 .0 .6757365E+040 .6097250E+060 .0 .0	1	1	1
0 .0 .3584000E+00 .0 .0 .0	1	1	1
CASE NUMBER 199	GROUP NUMBER 1	1	1
.2414953E+01 .4829907E+03 .2000000E+03 .2683282E+03 .1341641E+01 .6341978E+000 .3048625E+04	1	1	1
.2626129E+000 .4000000E+05 .9659814E+050 .0 .1219450E+09 .5252257E+02	1	1	1
.3523321E+000 .0 .7362287E+040 .6097250E+060 .0 .0	1	1	1
0 .0 .3641000E+00 .0 .0 .0	1	1	1
CASE NUMBER 200	GROUP NUMBER 2	2	2
0 .0 .5000000E+020 .0 .0 .3430000E+03	2	2	2
.3779645E+000 .2500000E+040 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02	2	2	2
0 .0 .1800000E+020 .0 .1715000E+050 .0	2	2	2
0 .0 .2916000E+06 .3057000E+00 .0 .0	2	2	2

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER	2	2
.3535534E+00 .1767767E+02 .5000000E+02 .3535534E+02 .7071068E+00 .1336306E+00 .1272792E+02 .3430000E+03	2	2	2
.3779645E+00 .6363961E+01 .2500000E+04 .8838835E+03 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02	2	2	2
.2672612E+00 .4123847E+04 .1800000E+02 .1212688E+03 .3181981E+03 .1715000E+05 .1590990E+05 .2061923E+04	2	2	2
.6363961E+03 .3181981E+05 .2916000E+06 .3284000E+00 .0 .0 .0 .0	2	2	2
CASE NUMBER 202	GROUP NUMBER 2	2	2
.1000000E+01 .5000000E+02 .5000000E+02 .5000000E+02 .1000000E+01 .3779645E+00 .1800000E+02 .3430000E+03	2	2	2
.3779645E+00 .1800000E+02 .2500000E+04 .2500000E+04 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02	2	2	2
.3779645E+00 .5832000E+04 .1800000E+02 .3430000E+03 .9000000E+03 .1715000E+05 .4500000E+05 .5832000E+04	2	2	2
.9000000E+03 .4500000E+05 .2916000E+06 .3476000E+00 .0 .0 .0 .0	2	2	2
CASE NUMBER 203	GROUP NUMBER 2	2	2
.1936408E+01 .9682039E+02 .5000000E+02 .6232117E+02 .1246423E+01 .7318934E+00 .2243562E+02 .3430000E+03	2	2	2
.3779645E+00 .3485534E+02 .2500000E+04 .4841020E+04 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02	2	2	2
.4711038E+00 .7269142E+04 .1800000E+02 .6641879E+03 .1742767E+04 .1715000E+05 .8713835E+05 .1129313E+05	2	2	2
.1121781E+04 .5608905E+05 .2916000E+06 .3715000E+00 .0 .0 .0 .0	2	2	2
CASE NUMBER 204	GROUP NUMBER 2	2	2
.2828422E+01 .1414214E+03 .5000000E+02 .7071068E+02 .1414214E+01 .1069045E+01 .2545584E+02 .3430000E+03	2	2	2
.3779645E+00 .5091168E+02 .2500000E+04 .7071068E+04 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02	2	2	2
.5345225E+00 .8247693E+04 .1800000E+02 .9701505E+03 .2545584E+04 .1715000E+05 .1272792E+06 .1649539E+05	2	2	2
.1272792E+04 .6363961E+05 .2916000E+06 .3930000E+00 .0 .0 .0 .0	2	2	2
CASE NUMBER 205	GROUP NUMBER 2	2	2
.3981115E+01 .1990558E+03 .5000000E+02 .7924495E+02 .1584899E+01 .1504720E+01 .2852818E+02 .3430000E+03	2	2	2
.3779645E+00 .7166008E+02 .2500000E+04 .9952788E+04 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02	2	2	2
.5890355E+00 .9243131E+04 .1800000E+02 .1365523E+04 .3583004E+04 .1715000E+05 .1791502E+06 .2321786E+05	2	2	2
.1426409E+04 .7132045E+05 .2916000E+06 .4240000E+00 .0 .0 .0 .0	2	2	2
CASE NUMBER 206	GROUP NUMBER 2	2	2
.5196152E+01 .2598076E+03 .5000000E+02 .8660254E+02 .1732051E+01 .1963961E+01 .3117691E+02 .3430000E+03	2	2	2
.3779645E+00 .9353074E+02 .2500000E+04 .1299038E+05 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02	2	2	2
.6546537E+00 .1010132E+05 .1800000E+02 .1782280E+04 .4676537E+04 .1715000E+05 .2338269E+06 .3030396E+05	2	2	2
.1558846E+04 .7794229E+05 .2916000E+06 .4592000E+00 .0 .0 .0 .0	2	2	2
CASE NUMBER 207	GROUP NUMBER 2	2	2
.6547900E+01 .3273950E+03 .5000000E+02 .9354143E+02 .1870829E+01 .2474874E+01 .3367492E+02 .3430000E+03	2	2	2
.3779645E+00 .1178622E+03 .2500000E+04 .1636975E+05 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02	2	2	2
.7071068E+00 .1091067E+05 .1800000E+02 .2245930E+04 .5893110E+04 .1715000E+05 .2946555E+06 .3818736E+05	2	2	2
.1683746E+04 .8418729E+05 .2916000E+06 .4919000E+00 .0 .0 .0 .0	2	2	2
CASE NUMBER 208	GROUP NUMBER 2	2	2
.8000000E+01 .4000000E+03 .5000000E+02 .1000000E+03 .2000000E+01 .3023716E+01 .3600000E+02 .3430000E+03	2	2	2
.3779645E+00 .1440000E+03 .2500000E+04 .2000000E+05 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02	2	2	2
.7559289E+00 .1166400E+05 .1800000E+02 .2744000E+04 .7200000E+04 .1715000E+05 .3600000E+05 .4665600E+05	2	2	2
.1800000E+04 .9000000E+05 .2916000E+06 .5292000E+00 .0 .0 .0 .0	2	2	2

FRIDAY JUL 2 1976

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FRIDAY, JUL 2, 1976

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DATE INPUT
CASE NUMBER 217
- .3952847E+01 - .1976424E+03 - .5000000E+02 - .7905694E+02 - .1581139E+01 - .1317616E+01 - .2846050E+02 - .7290000E+03
- .3333333E+00 - .7115125E+02 - .2500000E+04 - .9882118E+04 - .5832000E+04 - .6000000E+01 - .1822500E+07 - .1666667E+02
- .5270463E+00 - .9221202E+04 - .1800000E+02 - .2881626E+04 - .357562E+04 - .3645000E+05 - .1778781E+06 - .2305300E+05
- .1423025E+04 - .7115125E+05 - .2916000E+06 - .4503000E+00
CASE NUMBER 218
- .5196152E+01 - .2598076E+03 - .5000000E+02 - .8660254E+02 - .1732051E+01 - .1732051E+01 - .3117691E+02 - .7290000E+03
- .3333333E+00 - .9353074E+02 - .2500000E+04 - .1299038E+05 - .5832000E+04 - .6000000E+01 - .1822500E+07 - .1666667E+02
- .5773503E+00 - .1010132E+05 - .1800000E+02 - .3787995E+02 - .4676537E+04 - .3645000E+05 - .2338269E+06 - .3030396E+05
- .1558846E+04 - .7794229E+05 - .2916000E+06 - .4854000E+00
CASE NUMBER 219
- .6547900E+01 - .3273950E+03 - .5000000E+02 - .9354143E+02 - .1870829E+01 - .2182633E+01 - .3367492E+02 - .7290000E+03
- .3333333E+00 - .1178622E+03 - .2500000E+04 - .1636975E+05 - .5832000E+04 - .6000000E+01 - .1822500E+07 - .1666667E+02
- .3236096E+00 - .1091067E+05 - .1800000E+02 - .4773419E+04 - .5893110E+04 - .3645000E+05 - .2946555E+06 - .3818736E+05
- .1683746E+04 - .8418729E+05 - .2916000E+06 - .5325000E+00
CASE NUMBER 220
- .3333333E+00 - .1152600E+03 - .5000000E+02 - .9486833E+02 - .1897367E+01 - .2276840E+01 - .3415260E+02 - .7290000E+03
- .3333333E+00 - .1229494E+03 - .2500000E+04 - .1707630E+05 - .5832000E+04 - .6000000E+01 - .1822500E+07 - .1666667E+02
- .6224555E+00 - .1106544E+05 - .1800000E+02 - .4979449E+04 - .6147468E+04 - .3645000E+05 - .3073734E+06 - .3983559E+05
- .1707630E+04 - .8538150E+05 - .2916000E+06 - .5433000E+00
CASE NUMBER 221
- .7117092E+01 - .3585846E+03 - .5000000E+02 - .9617692E+02 - .1923538E+01 - .2372364E+01 - .3462369E+02 - .7290000E+03
- .3333333E+00 - .1281077E+03 - .2500000E+04 - .1779273E+05 - .5832000E+04 - .6000000E+01 - .1822500E+07 - .1666667E+02
- .6411795E+00 - .1121808E+05 - .1800000E+02 - .5188360E+04 - .6405383E+04 - .3645000E+05 - .3202691E+06 - .4150688E+05
- .1731185E+04 - .8655923E+05 - .2916000E+06 - .5494000E+00
CASE NUMBER 222
- .7407564E+01 - .3703782E+03 - .5000000E+02 - .9746794E+02 - .1949359E+01 - .2469188E+01 - .3508846E+02 - .7290000E+03
- .3333333E+00 - .1333361E+03 - .2500000E+04 - .1851891E+05 - .5832000E+04 - .6000000E+01 - .1822500E+07 - .1666667E+02
- .6497783E+00 - .1136866E+05 - .1800000E+02 - .5400114E+04 - .6668807E+04 - .3645000E+05 - .3333404E+06 - .4320091E+05
- .1754423E+04 - .8772115E+05 - .2916000E+06 - .5502000E+00
CASE NUMBER 223
- .3162278E+00 - .0. - .5000000E+020 - .0. - .5832000E+04 - .5692100E+01 - .2500000E+07 - .1581139E+02
- .0. - .0. - .1800000E+020 - .0. - .5000000E+050 - .0. - .0.
- .0. - .0. - .2916000E+06 - .3174000E+00
CASE NUMBER 224
- .3535534E+00 - .1677675E+02 - .5000000E+02 - .3535534E+02 - .7071068E+00 - .1118034E+00 - .1272792E+02 - .1000000E+04
- .5162278E+00 - .6363961E+01 - .2500000E+04 - .8838835E+03 - .5832000E+04 - .5692100E+01 - .2500000E+07 - .1581139E+02
- .3236068E+00 - .4123847E+04 - .1800000E+02 - .3535534E+03 - .3181881E+03 - .5000000E+05 - .1590990E+05 - .2061923E+04
- .6363961E+03 - .3181981E+05 - .2916000E+06 - .3455500E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 225                                GROUP NUMBER 2
.1000000E+01 .5000000E+02 .5000000E+02 .5000000E+02 .1000000E+01 .3162278E+00 .1800000E+02 .1000000E+04
.3162278E+00 .1800000E+02 .2500000E+04 .2500000E+04 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.3162278E+00 .5832000E+04 .1800000E+02 .1000000E+02 .9000000E+03 .5000000E+05 .4500000E+05 .5832000E+04
.9000000E+03 .4500000E+05 .2916000E+06 .3743000E+00

CASE NUMBER 226                                GROUP NUMBER 2
.1837117E+01 .5185587E+02 .5000000E+02 .6123724E+02 .1224745E+01 .5809475E+00 .2204541E+02 .1000000E+04
.3162278E+00 .3306811E+02 .2500000E+04 .4592793E+04 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.3872983E+00 .7142712E+04 .1800000E+02 .1837117E+04 .1653406E+04 .5000000E+05 .8267028E+05 .1071407E+05
.1102270E+04 .5511352E+05 .2916000E+06 .4040000E+00

CASE NUMBER 227                                GROUP NUMBER 2
.2930041E+01 .1465021E+03 .5000000E+02 .7154752E+02 .1430950E+01 .9265604E+00 .2575711E+02 .1000000E+04
.3162278E+00 .5274074E+02 .2500000E+04 .7325103E+04 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.4525062E+00 .8345303E+04 .1800000E+02 .2930041E+04 .2637037E+04 .5000000E+05 .1318519E+06 .1708800E+05
.1287855E+04 .6439277E+05 .2916000E+06 .4350000E+00

CASE NUMBER 228                                GROUP NUMBER 2
.4056322E+01 .2033161E+03 .5000000E+02 .7980631E+02 .1596126E+01 .1285884E+01 .2873027E+02 .1000000E+04
.3162278E+00 .7319379E+02 .2500000E+04 .1016580E+05 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.5047394E+00 .9308508E+04 .1800000E+02 .4066322E+04 .3659689E+04 .5000000E+05 .1829845E+06 .2371479E+05
.1436514E+04 .7182568E+05 .2916000E+06 .4650000E+00

CASE NUMBER 229                                GROUP NUMBER 2
.5196152E+01 .2598076E+03 .5000000E+02 .8660254E+02 .1732051E+01 .1643168E+01 .3117691E+02 .1000000E+04
.3162278E+00 .9353074E+02 .2500000E+04 .1299038E+05 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.5477226E+00 .1010132E+05 .1800000E+02 .5196152E+04 .4676537E+04 .5000000E+05 .2338268E+06 .3030386E+05
.1558846E+04 .7794229E+05 .2916000E+06 .5026000E+00

CASE NUMBER 230                                GROUP NUMBER 2
.6547900E+01 .3273950E+03 .5000000E+02 .9354143E+02 .1870829E+01 .2070628E+01 .3367492E+02 .1000000E+04
.3162278E+00 .1178622E+03 .2500000E+04 .1636975E+05 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.5916080E+00 .1091067E+05 .1800000E+02 .6547900E+04 .5893110E+04 .5000000E+05 .2946555E+06 .3818736E+05
.1683746E+04 .8418729E+05 .2916000E+06 .5495000E+00

CASE NUMBER 231                                GROUP NUMBER 2
.6830520E+01 .3415260E+03 .5000000E+02 .9486833E+02 .1897367E+01 .2160000E+01 .3415260E+02 .1000000E+04
.3162278E+00 .1229494E+03 .2500000E+04 .1707630E+05 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.6000000E+00 .1106544E+05 .1800000E+02 .6830520E+04 .6147468E+04 .5000000E+05 .3073734E+06 .3983559E+05
.1707630E+04 .8538150E+05 .2916000E+06 .5498000E+00

CASE NUMBER 232                                GROUP NUMBER 2
0. 0. .5000000E+020. 0. 0. 0. 0.
.2886751E+000. .2500000E+040. .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
0. 0. .1800000E+020. 0. .8640000E+050. 0.
0. 0. .2916000E+06 .3364000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 233                                GROUP NUMBER 2
.3535534E+00 .1767767E+02 .5000000E+02 .3535534E+02 .7071068E+00 .1020621E+00 .1272792E+02 .1728000E+04
.2886751E+00 .6363961E+01 .2500000E+04 .8838835E+03 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.2041241E+00 .4123847E+04 .1800000E+02 .6109403E+03 .3181981E+03 .8640000E+05 .1590990E+05 .2061923E+04
.6363961E+03 .3181981E+05 .2916000E+06 .3647000E+00

CASE NUMBER 234                                GROUP NUMBER 2
.1000000E+01 .5000000E+02 .5000000E+02 .5000000E+02 .1000000E+01 .2886751E+00 .1800000E+02 .1728000E+04
.2886751E+00 .1800000E+02 .2500000E+04 .2500000E+04 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.2886751E+00 .5832000E+04 .1800000E+02 .1728000E+04 .9000000E+03 .8640000E+05 .4500000E+05 .5832000E+04
.9000000E+03 .4500000E+05 .2916000E+06 .3935000E+00

CASE NUMBER 235                                GROUP NUMBER 2
.1761105E+01 .8805524E+02 .5000000E+02 .6038074E+02 .1207615E+01 .5083872E+00 .2173706E+02 .1728000E+04
.2886751E+00 .3189989E+02 .2500000E+04 .4402762E+04 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.3486082E+00 .7042809E+04 .1800000E+02 .3043189E+04 .1584994E+04 .8640000E+05 .7924971E+05 .1027076E+05
.1086853E+04 .5434266E+05 .2916000E+06 .4180000E+00

CASE NUMBER 236                                GROUP NUMBER 2
.2715548E+01 .1357775E+03 .5000000E+02 .6975723E+02 .1395145E+01 .7839116E+00 .2511260E+02 .1728000E+04
.2886751E+00 .4887989E+02 .2500000E+04 .6788874E+04 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.4027436E+00 .8136484E+04 .1800000E+02 .4692469E+04 .2443995E+04 .8640000E+05 .1221997E+06 .1583708E+05
.1256300E+04 .6278151E+05 .2916000E+06 .4480000E+00

CASE NUMBER 237                                GROUP NUMBER 2
.3952847E+01 .1976424E+03 .5000000E+02 .7905694E+02 .1581139E+01 .1141039E+01 .2846050E+02 .1728000E+04
.2886751E+00 .7115125E+02 .2500000E+04 .9882118E+04 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.4564355E+00 .9221202E+04 .1800000E+02 .6830520E+04 .3557562E+04 .8640000E+05 .1778781E+06 .2305300E+05
.1423025E+04 .7115125E+05 .2916000E+06 .4892000E+00

CASE NUMBER 238                                GROUP NUMBER 2
.4192374E+01 .2096187E+03 .5000000E+02 .8062258E+02 .1612452E+01 .1210234E+01 .2902413E+02 .1728000E+04
.2886751E+00 .7546273E+02 .2500000E+04 .1048094E+05 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.4654747E+00 .9403817E+04 .1800000E+02 .7244422E+04 .3773137E+04 .8640000E+05 .1886568E+06 .2444993E+05
.1451206E+04 .7256032E+05 .2916000E+06 .4987000E+00

CASE NUMBER 239                                GROUP NUMBER 2
.4436553E+01 .2218276E+03 .5000000E+02 .8215838E+02 .1643168E+01 .1280722E+01 .2957702E+02 .1728000E+04
.2886751E+00 .7985795E+02 .2500000E+04 .1109138E+05 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.4743416E+00 .9582954E+04 .1800000E+02 .7665363E+04 .3992897E+04 .8640000E+05 .1996449E+06 .2587398E+05
.1478851E+04 .7394255E+05 .2916000E+06 .5068000E+00

CASE NUMBER 240                                GROUP NUMBER 2
.4685296E+01 .2342648E+03 .5000000E+02 .8366600E+02 .1673320E+01 .1352528E+01 .3011976E+02 .1728000E+04
.2886751E+00 .8433533E+02 .2500000E+04 .1171324E+05 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.4830459E+00 .9758803E+04 .1800000E+02 .8096192E+04 .4216767E+04 .8640000E+05 .2108383E+06 .2732465E+05
.1505988E+04 .7529940E+05 .2916000E+06 .5156000E+00

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FRIDAY, JUL 2, 1976

A - 95

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	257	0.	0.	GROUP NUMBER	2		
.2828427E+010.	0.	0.	.1414214E+01	.1069045E+01	.2545584E+02	.3430000E+03	
.3779645E+00	.5091169E+020.	0.	.5832000E+04	.6803361E+010.	0.	0.	
.5345225E+00	.8247693E+04	.1800000E+02	.9701505E+030.	0.	0.	.1649539E+05	
0.	0.	0.	.3734000E+00				
CASE NUMBER	258	0.	0.	GROUP NUMBER	2		
.3952847E+010.	0.	0.	.1581139E+01	.1494036E+01	.2846050E+02	.3430000E+03	
.3779645E+00	.7115125E+020.	0.	.5832000E+04	.6803361E+010.	0.	0.	
.5976143E+00	.9221202E+04	.1800000E+02	.1355827E+040.	0.	0.	.2305300E+05	
0.	0.	0.	.3985000E+00				
CASE NUMBER	259	0.	0.	GROUP NUMBER	2		
.5196152E+010.	0.	0.	.1732051E+01	.1963961E+01	.3117691E+02	.3430000E+03	
.3779645E+00	.9353074E+020.	0.	.5832000E+04	.6803361E+010.	0.	0.	
.6546537E+00	.1010132E+05	.1800000E+02	.1782280E+040.	0.	0.	.3030396E+05	
0.	0.	0.	.4261000E+00				
CASE NUMBER	260	0.	0.	GROUP NUMBER	2		
.6614829E+010.	0.	0.	.1877181E+01	.2500170E+01	.3378926E+02	.3430000E+03	
.3779645E+00	.1190669E+030.	0.	.5832000E+04	.6803361E+010.	0.	0.	
.7095078E+00	.1094772E+05	.1800000E+02	.2268886E+040.	0.	0.	.3857768E+05	
0.	0.	0.	.4579000E+00				
CASE NUMBER	261	0.	0.	GROUP NUMBER	2		
.8000000E+010.	0.	0.	.2000000E+01	.3023716E+01	.3600000E+02	.3430000E+03	
.3779645E+00	.1440000E+030.	0.	.5832000E+04	.6803361E+010.	0.	0.	
.7559289E+00	.1168400E+05	.1800000E+02	.2744000E+040.	0.	0.	.4665600E+05	
0.	0.	0.	.4896000E+00				
CASE NUMBER	262	0.	0.	GROUP NUMBER	2		
.8301867E+010.	0.	0.	.2028446E+01	.3137811E+01	.3644722E+02	.3430000E+03	
.3779645E+00	.1494336E+030.	0.	.5832000E+04	.6803361E+010.	0.	0.	
.7653197E+00	.1180890E+05	.1800000E+02	.2847540E+040.	0.	0.	.4841649E+05	
0.	0.	0.	.4965000E+00				
CASE NUMBER	263	0.	0.	GROUP NUMBER	2		
0.	0.	0.	0.	0.	0.	.7290000E+03	
.3333333E+00	0.	0.	.5832000E+04	.6000000E+010.	0.	0.	
0.	0.	.1800000E+020.	0.	0.	0.	0.	
0.	0.	0.	.2948000E+00				
CASE NUMBER	264	0.	0.	GROUP NUMBER	2		
.3535534E+000.	0.	0.	.7071058E+00	.1178511E+00	.1272792E+02	.7290000E+03	
.3333333E+00	.4363961E+010.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.2357023E+00	.4123847E+04	.1800000E+02	.2577404E+030.	0.	0.	.2061923E+04	
0.	0.	0.	.3197000E+00				

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	265	0.	0.	GROUP NUMBER	2		
.1000000E+010.	0.	0.	.1000000E+01	.3333333E+00	.1800000E+02	.7290000E+03	
.3333333E+00	.1800000E+020.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.3333333E+00	.5832000E+04	.1800000E+02	.7290000E+030.	0.	0.	.5832000E+04	
0.	0.	0.	.3445000E+00				
CASE NUMBER	266	0.	0.	GROUP NUMBER	2		
.1837117E+010.	0.	0.	.1224745E+01	.6123724E+00	.2204541E+02	.7290000E+03	
.3333333E+00	.3306811E+020.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.4082483E+00	.7142712E+04	.1800000E+02	.1339259E+040.	0.	0.	.1071407E+05	
0.	0.	0.	.3664000E+00				
CASE NUMBER	267	0.	0.	GROUP NUMBER	2		
.2828427E+010.	0.	0.	.1414214E+01	.9428090E+00	.2545584E+02	.7290000E+03	
.3333333E+00	.5091169E+020.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.4714045E+00	.8247693E+04	.1800000E+02	.2061923E+040.	0.	0.	.1649539E+05	
0.	0.	0.	.3913000E+00				
CASE NUMBER	268	0.	0.	GROUP NUMBER	2		
.3952847E+010.	0.	0.	.1581139E+01	.1317616E+01	.2846050E+02	.7290000E+03	
.3333333E+00	.7115125E+020.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.5270463E+00	.9221202E+04	.1800000E+02	.2881626E+040.	0.	0.	.2305300E+05	
0.	0.	0.	.4213000E+00				
CASE NUMBER	269	0.	0.	GROUP NUMBER	2		
.5196152E+010.	0.	0.	.1732051E+01	.1732051E+01	.3117691E+02	.7290000E+03	
.3333333E+00	.9353074E+020.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.5773503E+00	.1010132E+05	.1800000E+02	.3787985E+040.	0.	0.	.3030396E+05	
0.	0.	0.	.4521000E+00				
CASE NUMBER	270	0.	0.	GROUP NUMBER	2		
.5547800E+010.	0.	0.	.1870829E+01	.2182633E+01	.3367492E+02	.7290000E+03	
.3333333E+00	.1178622E+030.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.6236096E+00	.1091067E+05	.1800000E+02	.4773419E+040.	0.	0.	.3818736E+05	
0.	0.	0.	.4912000E+00				
CASE NUMBER	271	0.	0.	GROUP NUMBER	2		
.6830520E+010.	0.	0.	.1897367E+01	.2276840E+01	.3415260E+02	.7290000E+03	
.3333333E+00	.1229494E+030.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.6324555E+00	.1106544E+05	.1800000E+02	.4979449E+040.	0.	0.	.3983559E+05	
0.	0.	0.	.4981000E+00				
CASE NUMBER	272	0.	0.	GROUP NUMBER	2		
0.	0.	0.	0.	0.	0.	.1000000E+04	
.3162278E+000.	0.	0.	.5832000E+04	.5692100E+010.	0.	0.	
0.	0.	.1800000E+020.	0.	0.	0.	0.	
0.	0.	0.	.3015000E+00				

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	273			GROUP NUMBER	2
.3535534E+000.	0.	0.	.7071068E+00	.1118034E+00	.1272792E+02 .1000000E+04
.3162278E+00	.6363961E+010.	0.	.5832000E+04	.5692100E+010.	0.
.2236068E+00	.4123847E+04	.1800000E+02	.3535534E+030.	0.	0.
0.	0.	0.	.3269000E+00	0.	.2061923E+04
CASE NUMBER	274			GROUP NUMBER	2
.1000000E+010.	0.	0.	.1000000E+01	.3162278E+00	.1800000E+02 .1000000E+04
.3162278E+00	.1800000E+020.	0.	.5832000E+04	.5692100E+010.	0.
.3162278E+00	.5832000E+04	.1800000E+02	.1000000E+040.	0.	0.
0.	0.	0.	.3505000E+00	0.	.5832000E+04
CASE NUMBER	275			GROUP NUMBER	2
.1837117E+010.	0.	0.	.1224745E+01	.5809475E+00	.2204541E+02 .1000000E+04
.3162278E+00	.3306811E+020.	0.	.5832000E+04	.5692100E+010.	0.
.3872983E+00	.7142712E+04	.1800000E+02	.1837117E+040.	0.	0.
0.	0.	0.	.3736000E+00	0.	.1071407E+05
CASE NUMBER	276			GROUP NUMBER	2
.2828427E+010.	0.	0.	.1414214E+01	.8944272E+00	.2545584E+02 .1000000E+04
.3162278E+00	.5091169E+020.	0.	.5832000E+04	.5692100E+010.	0.
.4472136E+00	.8247693E+04	.1800000E+02	.2828427E+040.	0.	0.
0.	0.	0.	.4019000E+00	0.	.1649539E+05
CASE NUMBER	277			GROUP NUMBER	2
.3952847E+010.	0.	0.	.1581139E+01	.1250000E+01	.2846050E+02 .1000000E+04
.3162278E+00	.7115125E+020.	0.	.5832000E+04	.5692100E+010.	0.
.5000000E+00	.9221202E+04	.1800000E+02	.3952847E+040.	0.	0.
0.	0.	0.	.4310000E+00	0.	.2305300E+05
CASE NUMBER	278			GROUP NUMBER	2
.5196152E+010.	0.	0.	.1732051E+01	.1643168E+01	.3117691E+02 .1000000E+04
.3162278E+00	.9353074E+020.	0.	.5832000E+04	.5692100E+010.	0.
.5477226E+00	.1010132E+05	.1800000E+02	.5196152E+040.	0.	0.
0.	0.	0.	.4852000E+00	0.	.3030396E+05
CASE NUMBER	279			GROUP NUMBER	2
.5458113E+010.	0.	0.	.1760682E+01	.1726007E+01	.3169227E+02 .1000000E+04
.3162278E+00	.9824604E+020.	0.	.5832000E+04	.5692100E+010.	0.
.5567764E+00	.1026830E+05	.1800000E+02	.5458113E+040.	0.	0.
0.	0.	0.	.4732000E+00	0.	.3183172E+05
CASE NUMBER	280			GROUP NUMBER	2
.5724334E+010.	0.	0.	.1788854E+01	.1810193E+01	.3219938E+02 .1000000E+04
.3162278E+00	.1030380E+030.	0.	.5832000E+04	.5692100E+010.	0.
.5656854E+00	.1043260E+05	.1800000E+02	.5724334E+040.	0.	0.
0.	0.	0.	.4816000E+00	0.	.3338432E+05

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	281			GROUP NUMBER	2
.5994748E+010.	0.	0.	.1816590E+01	.1895706E+01	.3269862E+02 .1000000E+04
.3162278E+00	.1079055E+030.	0.	.5832000E+04	.5692100E+010.	0.
.5744563E+00	.1059430E+05	.1800000E+02	.5994748E+040.	0.	0.
0.	0.	0.	.4901000E+00	0.	.3496137E+05
CASE NUMBER	282			GROUP NUMBER	2
.2886751E+000.	0.	0.	0.	0.	.1728000E+04
0.	0.	0.	.5832000E+04	.5196152E+010.	0.
0.	0.	.1800000E+020.	0.	0.	0.
0.	0.	0.	.3116000E+00	0.	0.
CASE NUMBER	283			GROUP NUMBER	2
.3535534E+000.	0.	0.	.7071068E+00	.1020621E+00	.1272792E+02 .1728000E+04
.2886751E+00	.6363961E+010.	0.	.5832000E+04	.5196152E+010.	0.
.2041241E+00	.4123847E+04	.1800000E+02	.6109403E+030.	0.	0.
0.	0.	0.	.3365000E+00	0.	.2061923E+04
CASE NUMBER	284			GROUP NUMBER	2
.1000000E+010.	0.	0.	.1000000E+01	.2886751E+00	.1800000E+02 .1728000E+04
.2886751E+00	.1800000E+020.	0.	.5832000E+04	.5196152E+010.	0.
.2886751E+00	.5832000E+04	.1800000E+02	.1728000E+040.	0.	0.
0.	0.	0.	.3633000E+00	0.	.5832000E+04
CASE NUMBER	285			GROUP NUMBER	2
.1837117E+010.	0.	0.	.1224745E+01	.5303201E+00	.2204541E+02 .1728000E+04
.2886751E+00	.3306811E+020.	0.	.5832000E+04	.5196152E+010.	0.
.3535534E+00	.7142712E+04	.1800000E+02	.3174539E+040.	0.	0.
0.	0.	0.	.3909000E+00	0.	.1071407E+05
CASE NUMBER	286			GROUP NUMBER	2
.2828427E+010.	0.	0.	.1414214E+01	.8164966E+00	.2545584E+02 .1728000E+04
.2886751E+00	.5091169E+020.	0.	.5832000E+04	.5196152E+010.	0.
.4082483E+00	.8247693E+04	.1800000E+02	.4887522E+040.	0.	0.
0.	0.	0.	.4195000E+00	0.	.1649539E+05
CASE NUMBER	287			GROUP NUMBER	2
.3952847E+010.	0.	0.	.1581139E+01	.1141089E+01	.2846050E+02 .1728000E+04
.2886751E+00	.7115125E+020.	0.	.5832000E+04	.5196152E+010.	0.
.4564355E+00	.9221202E+04	.1800000E+02	.6830520E+040.	0.	0.
0.	0.	0.	.4522000E+00	0.	.2305300E+05
CASE NUMBER	288			GROUP NUMBER	2
.4192374E+010.	0.	0.	.1612452E+01	.1210234E+01	.2902413E+02 .1728000E+04
.2886751E+00	.7546273E+020.	0.	.5832000E+04	.5196152E+010.	0.
.4654747E+00	.9403817E+04	.1800000E+02	.7244422E+040.	0.	0.
0.	0.	0.	.4597000E+00	0.	.2444993E+05

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER	2
289	2	
.443553E+010.	0.	.1643168E+01 .1280722E+01 .2957702E+02 .1728000E+04
.2886751E+00 .7985785E+020.	0.	.5832000E+04 .5196152E+010.
.4743416E+00 .9582954E+04 .1800000E+02 .7666163E+040.	0.	.2587398E+05
0.	0.	.4676000E+00
290	2	
.4685296E+010.	0.	.1673320E+01 .1352528E+01 .3011976E+02 .1728000E+04
.2886751E+00 .8433533E+020.	0.	.5832000E+04 .5196152E+010.
.4830459E+00 .9758803E+04 .1800000E+02 .8096192E+040.	0.	.2732465E+05
0.	0.	.4760000E+00
291	2	
0.	0.	0.
.2626129E+000.	0.	.5832000E+04 .4727032E+010.
0.	0.	0.
0.	0.	.3263000E+00
292	2	
.3535534E+000.	0.	.7071068E+00 .9284767E+01 .1272792E+02 .3048625E+04
.2626129E+00 .8363961E+010.	0.	.5832000E+04 .4727032E+010.
.1856953E+00 .4123847E+04 .1800000E+02 .1077852E+040.	0.	.2061923E+04
0.	0.	.3533000E+00
293	2	
.1000000E+010.	0.	.1000000E+01 .2626129E+00 .1800000E+02 .3048625E+04
.2626129E+00 .1800000E+020.	0.	.5832000E+04 .4727032E+010.
.2626129E+00 .5832000E+04 .1800000E+02 .3048625E+040.	0.	.5832000E+04
0.	0.	.3810000E+00
294	2	
.1837117E+010.	0.	.1224745E+01 .4824506E+00 .2204541E+02 .3048625E+04
.2626129E+00 .3306811E+020.	0.	.5832000E+04 .4727032E+010.
.3216338E+00 .7142712E+04 .1800000E+02 .5600682E+040.	0.	.1071407E+05
0.	0.	.4100000E+00
295	2	
.2628427E+010.	0.	.1414214E+01 .7427814E+00 .2545584E+02 .3048625E+04
.2626129E+00 .5091169E+020.	0.	.5832000E+04 .4727032E+010.
.3713907E+00 .8247693E+04 .1800000E+02 .8622814E+040.	0.	.1649539E+05
0.	0.	.4418000E+00
296	2	
.3043189E+010.	0.	.1449138E+01 .7991806E+00 .2608448E+02 .3048625E+04
.2626129E+00 .5477740E+020.	0.	.5832000E+04 .4727032E+010.
.3805622E+00 .8451371E+04 .1800000E+02 .9277542E+040.	0.	.1774788E+05
0.	0.	.4490000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER	2
297	2	
.3263127E+010.	0.	.1483240E+01 .8569392E+00 .2669831E+02 .3048625E+04
.2626129E+00 .5873629E+020.	0.	.5832000E+04 .4727032E+010.
.3895178E+00 .8650254E+04 .1800000E+02 .9948052E+040.	0.	.1903056E+05
0.	0.	.4565000E+00
298	2	
0.	0.	0.
.3779645E+000.	0.	.5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
0.	0.	.3430000E+050.
0.	0.	.5832000E+06 .2613000E+00
299	2	
.3535534E+00 .3535534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .1336306E+00 .1272792E+02 .3430000E+03		
.3779645E+00 .6363961E+01 .1000000E+05 .3535534E+04 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02		
.2672612E+00 .4123847E+04 .1800000E+02 .1212688E+03 .6363961E+03 .3430000E+05 .6363961E+05 .2061923E+04		
.1272792E+02 .1272792E+06 .5832000E+06 .2780000E+00		
300	2	
.1000000E+01 .1000000E+03 .1000000E+03 .1000000E+03 .1000000E+01 .3779645E+00 .1800000E+02 .3430000E+03		
.3779645E+00 .1800000E+02 .1000000E+05 .1000000E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02		
.3779645E+00 .5832000E+04 .1800000E+02 .3430000E+05 .1800000E+04 .3430000E+06 .5832000E+04		
.1800000E+04 .1800000E+06 .5832000E+06 .2955000E+00		
301	2	
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .6943651E+00 .2204541E+02 .3430000E+03		
.3779645E+00 .3306811E+02 .1000000E+05 .1837117E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02		
.4629100E+00 .7142712E+04 .1800000E+02 .6301312E+03 .3306811E+04 .3430000E+05 .3306811E+06 .1071407E+05		
.2204541E+04 .2204541E+06 .5832000E+06 .3128000E+00		
302	2	
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .1069045E+01 .2545584E+02 .3430000E+03		
.3779645E+00 .5091169E+02 .1000000E+05 .2828427E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02		
.5345225E+00 .8247693E+04 .1800000E+02 .9701505E+03 .5091169E+04 .3430000E+05 .5091169E+06 .1649539E+05		
.2545584E+04 .2545584E+06 .5832000E+06 .3331000E+00		
303	2	
.3952847E+01 .3952847E+03 .1000000E+03 .1581139E+03 .1581139E+01 .1494036E+01 .2846050E+02 .3430000E+03		
.3779645E+00 .7115125E+02 .1000000E+05 .3952847E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02		
.5976143E+00 .9221202E+04 .1800000E+02 .1355827E+04 .7115125E+04 .3430000E+05 .7115125E+06 .2305300E+05		
.2846050E+04 .2846050E+06 .5832000E+06 .3547000E+00		
304	2	
.5196152E+01 .5196152E+03 .1000000E+03 .1732051E+03 .1732051E+01 .1963961E+01 .3117691E+02 .3430000E+03		
.3779645E+00 .9353074E+02 .1000000E+05 .5196152E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02		
.6546537E+00 .1010132E+05 .1800000E+02 .1782280E+04 .9353074E+04 .3430000E+05 .9353074E+06 .3030396E+05		
.3117691E+04 .3117691E+06 .5832000E+06 .3806000E+00		

FRIDAY, JUL 2, 1976

CASE NUMBER 305				GROUP NUMBER 2			
.447900E+00	.6547900E+03	.1000000E+03	.1870829E+03	.1870829E+03	.2474874E+01	.3367449E+02	.3430000E+03
.3779645E+00	.1178622E+03	.1000000E+05	.6547900E+05	.5832000E+04	.6803361E+01	.3430000E+07	.3779645E+02
.7071068E+00	.1091067E+05	.1800000E+02	.2245930E+04	.1178622E+05	.3430000E+05	.1178622E+07	.3818736E+05
.3367492E+04	.3367492E+06	.5832000E+06	.4117000E+00				
CASE NUMBER 306				GROUP NUMBER 2			
.6830520E+01	.6830520E+03	.1000000E+03	.1897367E+03	.1897367E+01	.2581694E+01	.3415260E+02	.3430000E+03
.3779645E+00	.1229494E+03	.1000000E+05	.6830520E+05	.5832000E+04	.6803361E+01	.3430000E+07	.3779645E+02
.7171372E+00	.1106544E+05	.1800000E+02	.2342868E+04	.1229494E+05	.3430000E+05	.1229494E+07	.3983559E+05
.3415260E+04	.3415260E+06	.5832000E+06	.4171000E+00				
CASE NUMBER 307				GROUP NUMBER 2			
.7117092E+01	.7117092E+03	.1000000E+03	.1923538E+03	.1923538E+01	.2690008E+01	.3462369E+02	.3430000E+03
.3779645E+00	.1281077E+03	.1000000E+05	.7117092E+05	.5832000E+04	.6803361E+01	.3430000E+07	.3779645E+02
.7270292E+00	.1121808E+05	.1800000E+02	.2441163E+04	.1281077E+05	.3430000E+05	.1281077E+07	.4150688E+05
.3462369E+04	.3462369E+06	.5832000E+06	.4230000E+00				
CASE NUMBER 308				GROUP NUMBER 2			
.7407584E+01	.7407584E+03	.1000000E+03	.1949359E+03	.1949359E+01	.2799795E+01	.3508846E+02	.3430000E+03
.3779645E+00	.1333361E+03	.1000000E+05	.7407584E+05	.5832000E+04	.6803361E+01	.3430000E+07	.3779645E+02
.7588846E+00	.1338666E+05	.1800000E+02	.2540794E+04	.1333361E+05	.3430000E+05	.1333361E+07	.4320091E+05
.3508846E+04	.3508846E+06	.5832000E+06	.4292000E+00				
CASE NUMBER 309				GROUP NUMBER 2			
.7701883E+01	.7701883E+03	.1000000E+03	.1978482E+03	.1978482E+01	.2911038E+01	.3554715E+02	.3430000E+03
.3779645E+00	.1386339E+03	.1000000E+05	.7701883E+05	.5832000E+04	.6803361E+01	.3430000E+07	.3779645E+02
.7464200E+00	.1151728E+05	.1800000E+02	.2641746E+04	.1386339E+05	.3430000E+05	.1386339E+07	.4491738E+05
.3554715E+04	.3554715E+06	.5832000E+06	.4356000E+00				
CASE NUMBER 310				GROUP NUMBER 2			
0.	0.	.1000000E+030.	0.	0.	0.	0.	.7290000E+03
.3333333E+000.	0.	.1000000E+050.	0.	.5832000E+04	.6000000E+01	.7290000E+07	.3333333E+02
0.	0.	.1800000E+020.	0.	0.	.7290000E+050.	0.	0.
0.	0.	.5832000E+06	.2711000E+00				
CASE NUMBER 311				GROUP NUMBER 2			
.3535534E+00	.3535534E+02	.1000000E+03	.7071068E+02	.7071068E+00	.1178511E+00	.1272792E+02	.7290000E+03
.3333333E+00	.6363961E+01	.1000000E+05	.3535534E+04	.5832000E+04	.6000000E+01	.7290000E+07	.3333333E+02
.2357023E+00	.4122847E+04	.1800000E+02	.2577404E+03	.6363961E+03	.7290000E+05	.6363961E+05	.2061923E+04
.1272792E+04	.1272792E+06	.5832000E+06	.2892000E+00				
CASE NUMBER 312				GROUP NUMBER 2			
.1000000E+00	.1000000E+03	.1000000E+03	.1000000E+03	.1000000E+01	.3333333E+00	.1800000E+02	.7290000E+03
.3333333E+00	.1800000E+02	.1000000E+05	.1000000E+05	.5832000E+04	.6000000E+01	.7290000E+07	.3333333E+02
.3333333							

FRIDAY, JUL 2, 1976

CASE NUMBER				GROUP NUMBER			
1837117E+01	1837117E+03	1000000E+03	1224745E+03	1224745E+01	5123724E+00	2204541E+02	7290000E+03
3333333E+00	3306311E+02	1000000E+05	1837117E+05	5832000E+04	6000000E+01	7290000E+07	3333333E+02
4082483E+00	7142712E+04	1800000E+02	1339259E+04	3306811E+04	7290000E+05	3306811E+06	1071407E+05
2204541E+04	2204541E+06	5832000E+06	3278000E+00				
CASE NUMBER 314				GROUP NUMBER 2			
2828427E+01	2828427E+03	1000000E+03	1414214E+03	1414214E+01	9428090E+00	2545584E+02	7290000E+03
3333333E+00	5091169E+02	1000000E+05	2828427E+05	5832000E+04	6000000E+01	7290000E+07	3333333E+02
4714045E+00	8247693E+04	1800000E+02	2061923E+04	5091169E+04	7290000E+05	5091169E+06	1649539E+05
2545584E+04	2545584E+06	5832000E+06	3501000E+00				
CASE NUMBER 315				GROUP NUMBER 2			
3952847E+01	3952847E+03	1000000E+03	1581139E+03	1581139E+01	1317516E+01	2846050E+02	7290000E+03
3333333E+00	7115125E+02	1000000E+05	3952847E+05	5832000E+04	6000000E+01	7290000E+07	3333333E+02
5270643E+00	9221202E+04	1800000E+02	2881626E+04	7115125E+04	7290000E+05	7115125E+06	2305300E+05
2846050E+04	2846050E+06	5832000E+06	3763000E+00				
CASE NUMBER 316				GROUP NUMBER 2			
9350152E+01	9350152E+03	1000000E+03	1732051E+03	1732051E+01	1732051E+01	3117891E+02	7290000E+03
3333333E+00	9350704E+02	1000000E+05	5196152E+05	5832000E+04	6000000E+01	7290000E+07	3333333E+02
5773503E+00	1010132E+05	1800000E+02	3787995E+04	9350704E+04	7290000E+05	9350704E+06	3030396E+05
3117691E+04	3117691E+06	5832000E+06	4072000E+00				
CASE NUMBER 317				GROUP NUMBER 2			
5458113E+01	5458113E+03	1000000E+03	1760682E+03	1760682E+01	1819371E+01	3169227E+02	7290000E+03
3333333E+00	9824604E+02	1000000E+05	5458113E+05	5832000E+04	6000000E+01	7290000E+07	3333333E+02
5868939E+00	1026830E+05	1800000E+02	3978965E+04	9824604E+04	7290000E+05	9824604E+06	3183172E+05
3169227E+04	3169227E+06	5832000E+06	4139000E+00				
CASE NUMBER 318				GROUP NUMBER 2			
5724334E+01	5724334E+03	1000000E+03	1788854E+03	1788854E+01	1908111E+01	3219938E+02	7290000E+03
3333333E+00	1030380E+03	1000000E+05	5724334E+05	5832000E+04	6000000E+01	7290000E+07	3333333E+02
5962848E+00	1043280E+05	1800000E+02	4173040E+04	1030380E+05	7290000E+05	1030380E+06	3338432E+05
3219938E+04	3219938E+06	5832000E+06	4212000E+00				
CASE NUMBER 319				GROUP NUMBER 2			
5994748E+01	5994748E+03	1000000E+03	1816590E+03	1816590E+01	1998249E+01	3269862E+02	7290000E+03
3333333E+00	1079055E+03	1000000E+05	5994748E+05	5832000E+04	6000000E+01	7290000E+07	3333333E+02
6055043E+00	3269862E+05	1800000E+02	4370171E+04	1079055E+05	7290000E+05	1079055E+06	3496137E+05
3269862E+04	3269862E+06	5832000E+06	4284000E+00				
CASE NUMBER 320				GROUP NUMBER 2			
0.	0.	1000000E+030.	0.	0.	0.	0.	1000000E+04
3162278E+000.	0.	1000000E+050.	583200				

FRIDAY, JUL 2, 1976

TRANSGENERATED  
DATA INPUT

CASE NUMBER	GROUP NUMBER	2
3535534E+00 .3535534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .1118034E+00 .1272792E+02 .1000000E+04		
.3162278E+00 .6363961E+01 .1000000E+05 .3535534E+04 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02		
.2236066E+00 .4123847E+04 .1800000E+02 .3535534E+03 .6363961E+03 .1000000E+06 .6363961E+05 .2061923E+04		
.1272792E+04 .1272792E+06 .5832000E+06 .2956000E+00		
CASE NUMBER 322	GROUP NUMBER 2	
.1000000E+01 .1000000E+03 .1000000E+05 .1000000E+07 .1000000E+09 .3162278E+00 .1800000E+02 .1000000E+04		
.3162278E+00 .1800000E+02 .1000000E+05 .1000000E+07 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02		
.3162278E+00 .5832000E+04 .1800000E+02 .1000000E+04 .1800000E+04 .1000000E+06 .1800000E+06 .5832000E+04		
.1800000E+04 .1800000E+06 .5832000E+06 .3141000E+00		
CASE NUMBER 323	GROUP NUMBER 2	
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .5809475E+00 .2204541E+02 .1000000E+04		
.3162278E+00 .3306811E+02 .1000000E+05 .1837117E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02		
.3872983E+00 .7142712E+04 .1800000E+02 .1837117E+04 .3306811E+04 .1000000E+06 .3306811E+06 .1071407E+05		
.2204541E+04 .2204541E+06 .5832000E+06 .3351000E+00		
CASE NUMBER 324	GROUP NUMBER 2	
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .8944272E+00 .2545584E+02 .1000000E+04		
.3162278E+00 .5091169E+02 .1000000E+05 .2828427E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02		
.4472136E+00 .8247693E+04 .1800000E+02 .2828427E+04 .5091169E+04 .1000000E+06 .5091169E+06 .1649539E+05		
.2545584E+04 .2545584E+06 .5832000E+06 .3590000E+00		
CASE NUMBER 325	GROUP NUMBER 2	
.3952847E+01 .3952847E+03 .1000000E+03 .1581139E+03 .1581139E+01 .1250000E+01 .2846050E+02 .1000000E+04		
.3162278E+00 .7115125E+02 .1000000E+05 .3952847E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02		
.5000000E+00 .9221202E+04 .1800000E+02 .3952847E+04 .7115125E+04 .1000000E+06 .7115125E+06 .2305300E+05		
.2846050E+04 .2846050E+06 .5832000E+06 .3874000E+00		
CASE NUMBER 326	GROUP NUMBER 2	
.4192374E+01 .4192374E+03 .1000000E+03 .1612452E+03 .1612452E+01 .1325745E+01 .2902413E+02 .1000000E+04		
.3162278E+00 .7546273E+02 .1000000E+05 .4192374E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02		
.5099020E+00 .9403817E+04 .1800000E+02 .4192374E+04 .7546273E+04 .1000000E+06 .7546273E+06 .2444993E+05		
.2902413E+04 .2902413E+06 .5832000E+06 .3936000E+00		
CASE NUMBER 327	GROUP NUMBER 2	
.4436553E+01 .4436553E+03 .1000000E+03 .1643168E+03 .1643168E+01 .1402961E+01 .2957702E+02 .1000000E+04		
.3162278E+00 .7985795E+02 .1000000E+05 .4436553E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02		
.5385165E+00 .9931538E+04 .1800000E+02 .4436553E+04 .7985795E+04 .1000000E+06 .7985795E+06 .2587398E+05		
.2957702E+04 .2957702E+06 .5832000E+06 .4000000E+00		
CASE NUMBER 328	GROUP NUMBER 2	
.4685296E+01 .4685296E+03 .1000000E+03 .1673320E+03 .1673320E+01 .1481621E+01 .3011976E+02 .1000000E+04		
.3162278E+00 .8433533E+02 .1000000E+05 .4685296E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02		
.5291503E+00 .9758803E+04 .1800000E+02 .4685296E+04 .8433533E+04 .1000000E+06 .8433533E+06 .2732465E+05		
.3011976E+04 .3011976E+06 .5832000E+06 .4066000E+00		

FRIDAY, JUL 2, 1976

TRANSGENERATED  
DATA INPUT

CASE NUMBER	GROUP NUMBER	2
4938522E+01 .4938522E+03 .1000000E+03 .1702939E+03 .1702939E+01 .1561698E+01 .3065290E+02 .1000000E+04		
.3162278E+00 .8889340E+02 .1000000E+05 .4938522E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02		
.5385165E+00 .9931538E+04 .1800000E+02 .4938522E+04 .8889340E+04 .1000000E+06 .8889340E+06 .2880146E+05		
.3065290E+04 .3065290E+06 .5832000E+06 .4135000E+00		
CASE NUMBER 329	GROUP NUMBER 2	
.5196152E+01 .5196152E+03 .1000000E+03 .1732051E+03 .1732051E+01 .1643168E+01 .3117691E+02 .1000000E+04		
.3162278E+00 .9353074E+02 .1000000E+05 .5196152E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02		
.5477226E+00 .1010132E+05 .1800000E+02 .5196152E+04 .9353074E+04 .1000000E+06 .9353074E+06 .3030396E+05		
.3117691E+04 .3117691E+06 .5832000E+06 .4205000E+00		
CASE NUMBER 331	GROUP NUMBER 2	
0. 0. 1000000E+030. 0. 0. 0. 1728000E+04		
.2886751E+000. 0. 1000000E+050. 0. 5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02		
0. 0. 1800000E+020. 0. 0. 1728000E+060. 0.		
0. 5832000E+06 .2825000E+00		
CASE NUMBER 332	GROUP NUMBER 2	
.3535534E+00 .3535534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .1020621E+00 .1272792E+02 .1728000E+04		
.2886751E+00 .6363961E+01 .1000000E+05 .3535534E+04 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02		
.2041241E+00 .4123847E+04 .1800000E+02 .6109403E+03 .6363961E+03 .1728000E+06 .6363961E+05 .2061923E+04		
.1272792E+04 .1272792E+06 .5832000E+06 .3044000E+00		
CASE NUMBER 333	GROUP NUMBER 2	
.1000000E+01 .1000000E+03 .1000000E+05 .1000000E+07 .1000000E+09 .2886751E+00 .1800000E+02 .1728000E+04		
.2886751E+00 .1800000E+02 .1000000E+05 .1000000E+07 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02		
.2886751E+00 .5832000E+04 .1800000E+02 .1728000E+04 .1800000E+04 .1728000E+06 .1800000E+06 .5832000E+04		
.1800000E+04 .1800000E+06 .5832000E+06 .3265000E+00		
CASE NUMBER 334	GROUP NUMBER 2	
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .5303301E+00 .2204541E+02 .1728000E+04		
.2886751E+00 .3306811E+02 .1000000E+05 .1837117E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02		
.3535534E+00 .7142712E+04 .1800000E+02 .3174539E+04 .3306811E+04 .1728000E+06 .3306811E+06 .1071407E+05		
.2204541E+04 .2204541E+06 .5832000E+06 .3499000E+00		
CASE NUMBER 335	GROUP NUMBER 2	
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .8164966E+00 .2545584E+02 .1728000E+04		
.2886751E+00 .5091169E+02 .1000000E+05 .2828427E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02		
.4082483E+00 .8247693E+04 .1800000E+02 .4887522E+04 .5091169E+04 .1728000E+06 .5091169E+06 .1649539E+05		
.2545584E+04 .2545584E+06 .5832000E+06 .3773000E+00		
CASE NUMBER 336	GROUP NUMBER 2	
.3043189E+01 .3043189E+03 .1000000E+03 .1449138E+03 .1449138E+01 .8784930E+00 .2608448E+02 .1728000E+04		
.2886751E+00 .5477740E+02 .1000000E+05 .3043189E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02		
.4183300E+00 .8451371E+04 .1800000E+02 .5258531E+04 .5477740E+04 .1728000E+06 .5477740E+06 .1774788E+05		
.2608448E+04 .2608448E+06 .5832000E+06 .3833000E+00		

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	337	GROUP NUMBER	2
.3263127E+01	.3263127E+03	.1000000E+03	.1483240E+03
.2886751E+00	.5873629E+02	.1000000E+05	.3263127E+05
.4281744E+00	.8650254E+04	.1800000E+02	.5638684E+04
.2669831E+04	.2669831E+06	.5832000E+06	.3895000E+00
CASE NUMBER	338	GROUP NUMBER	2
.3488123E+01	.3488123E+03	.1000000E+03	.1516575E+03
.2886751E+00	.6278521E+02	.1000000E+05	.3488123E+05
.4377975E+00	.8844666E+04	.1800000E+02	.6027476E+04
.2729835E+04	.2729835E+06	.5832000E+06	.3959000E+00
CASE NUMBER	339	GROUP NUMBER	2
.3718064E+01	.3718064E+03	.1000000E+03	.1549193E+03
.2886751E+00	.6692515E+02	.1000000E+05	.3718064E+05
.4472136E+00	.9034896E+04	.1800000E+02	.6424815E+04
.2788548E+04	.2788548E+06	.5832000E+06	.4026000E+00
CASE NUMBER	340	GROUP NUMBER	2
.3952847E+01	.3952847E+03	.1000000E+03	.1581139E+03
.2886751E+00	.7115125E+02	.1000000E+05	.3952847E+05
.4564355E+00	.9221202E+04	.1800000E+02	.6830520E+04
.2846050E+04	.2846050E+06	.5832000E+06	.4095000E+00
CASE NUMBER	341	GROUP NUMBER	2
0.	0.	.1000000E+030.	0.
.2626129E+000.	0.	.1000000E+050.	.5832000E+04
0.	0.	.1800000E+020.	.4727032E+01
0.	0.	.5832000E+06	.3048625E+08
CASE NUMBER	342	GROUP NUMBER	2
.353534E+00	.353534E+02	.1000000E+03	.7071068E+02
.2626129E+00	.6363961E+01	.1000000E+05	.353534E+04
.1856953E+00	.4123847E+04	.1800000E+02	.1077852E+04
.1272792E+04	.1272792E+06	.5832000E+06	.3172000E+00
CASE NUMBER	343	GROUP NUMBER	2
.1000000E+01	.1000000E+03	.1000000E+03	.1000000E+03
.2626129E+00	.1800000E+02	.1000000E+05	.1000000E+05
.2626129E+00	.5832000E+04	.1800000E+02	.3048625E+04
.1800000E+04	.1800000E+06	.5832000E+06	.3424000E+00
CASE NUMBER	344	GROUP NUMBER	2
.1837117E+01	.1837117E+03	.1000000E+03	.1224745E+03
.2626129E+00	.3306811E+02	.1000000E+05	.1837117E+05
.3216338E+00	.7142712E+04	.1800000E+02	.5600682E+04
.2204541E+04	.2204541E+06	.5832000E+06	.3691000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	345	GROUP NUMBER	2
.2023858E+01	.2023858E+03	.1000000E+03	.1264911E+03
.2626129E+00	.3642944E+02	.1000000E+05	.2023858E+05
.3321819E+00	.7376961E+04	.1800000E+02	.6169983E+04
.2276840E+04	.2276840E+06	.5832000E+06	.3750000E+00
CASE NUMBER	346	GROUP NUMBER	2
.2216529E+01	.2216529E+03	.1000000E+03	.1303840E+03
.2626129E+00	.3989752E+02	.1000000E+05	.2216529E+05
.3424053E+00	.7603998E+04	.1800000E+02	.6757365E+04
.2346913E+04	.2346913E+06	.5832000E+06	.3811000E+00
CASE NUMBER	347	GROUP NUMBER	2
.2414953E+01	.2414953E+03	.1000000E+03	.1341641E+03
.2626129E+00	.4346916E+02	.1000000E+05	.2414953E+05
.3523321E+00	.7824449E+04	.1800000E+02	.7362287E+04
.2414953E+04	.2414953E+06	.5832000E+06	.3872000E+00
CASE NUMBER	348	GROUP NUMBER	2
.2618969E+01	.2618969E+03	.1000000E+03	.1378405E+03
.2626129E+00	.4714145E+02	.1000000E+05	.2618969E+05
.3619869E+00	.8038857E+04	.1800000E+02	.7984255E+04
.2481129E+04	.2481129E+06	.5832000E+06	.3937000E+00
CASE NUMBER	349	GROUP NUMBER	2
0.	0.	.2000000E+030.	0.
.3779645E+000.	0.	.4000000E+050.	.5832000E+04
0.	0.	.1800000E+020.	.6803361E+01
0.	0.	.1166400E+07	.8860000E+050.
CASE NUMBER	350	GROUP NUMBER	2
.353534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.3779645E+00	.6363961E+01	.4000000E+05	.1414214E+05
.2672612E+00	.4123847E+04	.1800000E+02	.1212688E+04
.254584E+04	.5091169E+06	.1166400E+07	.2555000E+00
CASE NUMBER	351	GROUP NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03
.3779645E+00	.1800000E+02	.4000000E+05	.5832000E+04
.3779645E+00	.5832000E+04	.1800000E+02	.3430000E+03
.3600000E+04	.7200000E+06	.1166400E+07	.2705000E+00
CASE NUMBER	352	GROUP NUMBER	2
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03
.3779645E+00	.3306811E+02	.4000000E+05	.7348469E+05
.4629100E+00	.7142712E+04	.1800000E+02	.6301312E+03
.4409082E+04	.8818163E+06	.1166400E+07	.2863000E+00

FRIDAY, JUL 2, 1976

TRANSGENERATED  
DATA INPUT

CASE NUMBER	353	GROUP NUMBER	2
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03
.3779645E+00	.5091169E+02	.4000000E+05	.1131371E+06
.5345225E+00	.8247693E+04	.1800000E+02	.9701505E+03
.5091169E+04	.1018234E+07	.1166400E+07	.3042000E+00
CASE NUMBER	354	GROUP NUMBER	2
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03
.3779645E+00	.7115125E+02	.4000000E+05	.1581139E+06
.5976143E+00	.9221202E+04	.1800000E+02	.1355827E+04
.5692100E+04	.1138420E+07	.1166400E+07	.3253000E+00
CASE NUMBER	355	GROUP NUMBER	2
.5196152E+01	.1039230E+04	.2000000E+03	.3464102E+03
.3779645E+00	.9353074E+02	.4000000E+05	.2078461E+06
.6546537E+00	.1010132E+05	.1800000E+02	.1782280E+04
.6235383E+04	.1247077E+07	.1166400E+07	.3506000E+00
CASE NUMBER	356	GROUP NUMBER	2
.6547900E+01	.1309580E+04	.2000000E+03	.3741657E+03
.3779645E+00	.1178622E+03	.4000000E+05	.2619160E+06
.7071068E+00	.1091067E+05	.1800000E+02	.2245930E+04
.6734983E+04	.1346997E+07	.1166400E+07	.3797000E+00
CASE NUMBER	357	GROUP NUMBER	2
.6830520E+01	.1366104E+04	.2000000E+03	.3794733E+03
.3779645E+00	.1229494E+03	.4000000E+05	.2732208E+06
.7171372E+00	.1106544E+05	.1800000E+02	.2342868E+04
.6830520E+04	.1366104E+07	.1166400E+07	.3849000E+00
CASE NUMBER	358	GROUP NUMBER	2
.7117092E+01	.1423418E+04	.2000000E+03	.3847077E+03
.3779645E+00	.1281077E+03	.4000000E+05	.2846837E+06
.7270292E+00	.1121808E+05	.1800000E+02	.2441153E+04
.6924738E+04	.1384948E+07	.1166400E+07	.3905000E+00
CASE NUMBER	359	GROUP NUMBER	2
0.	0.	.2000000E+030.	0.
.3333333E+000.	0.	.4000000E+050.	.5832000E+04
0.	0.	.1800000E+020.	.6000000E+01
0.	0.	.1166400E+07	.2521000E+00
CASE NUMBER	360	GROUP NUMBER	2
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.3333333E+00	.6363961E+01	.4000000E+05	.1414214E+05
.2357023E+00	.4123847E+04	.1800000E+02	.2577404E+03
.2545584E+04	.5091169E+06	.1166400E+07	.2651000E+00

FRIDAY, JUL 2, 1976

TRANSGENERATED  
DATA INPUT

CASE NUMBER	361	GROUP NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.1000000E+01
.3333333E+00	.1800000E+02	.4000000E+05	.5832000E+04
.3333333E+00	.5832000E+02	.7290000E+03	.3600000E+04
.3600000E+04	.7200000E+06	.1166400E+07	.2819000E+00
CASE NUMBER	362	GROUP NUMBER	2
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03
.3333333E+00	.3306811E+02	.4000000E+05	.7348469E+05
.4082483E+00	.7142712E+04	.1800000E+02	.1339259E+04
.4409082E+04	.8818163E+06	.1166400E+07	.3009000E+00
CASE NUMBER	363	GROUP NUMBER	2
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03
.3333333E+00	.5091169E+02	.4000000E+05	.1131371E+06
.4714045E+00	.8247693E+04	.1800000E+02	.2061923E+04
.5091169E+04	.1018234E+07	.1166400E+07	.3228000E+00
CASE NUMBER	364	GROUP NUMBER	2
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03
.3333333E+00	.7115125E+02	.4000000E+05	.1581139E+06
.5270463E+00	.9221202E+04	.1800000E+02	.2881626E+04
.5692100E+04	.1138420E+07	.1166400E+07	.3472000E+00
CASE NUMBER	365	GROUP NUMBER	2
.5196152E+01	.1039230E+04	.2000000E+03	.3464102E+03
.3333333E+00	.9353074E+02	.4000000E+05	.2078461E+06
.5773503E+00	.1010132E+05	.1800000E+02	.1787995E+04
.6235383E+04	.1247077E+07	.1166400E+07	.3761000E+00
CASE NUMBER	366	GROUP NUMBER	2
.5458113E+01	.1091623E+04	.2000000E+03	.3521363E+03
.3333333E+00	.9824604E+02	.4000000E+05	.2183245E+06
.5868939E+00	.1026830E+05	.1800000E+02	.3978965E+04
.6338454E+04	.1267691E+07	.1166400E+07	.3824000E+00
CASE NUMBER	367	GROUP NUMBER	2
0.	0.	.2000000E+030.	0.
.3162278E+000.	0.	.4000000E+050.	.5832000E+04
0.	0.	.1800000E+020.	.6000000E+01
0.	0.	.1166400E+07	.2557000E+00
CASE NUMBER	368	GROUP NUMBER	2
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.3162278E+00	.6363961E+01	.4000000E+05	.1414214E+05
.2236068E+00	.4123847E+04	.1800000E+02	.2577404E+03
.2545584E+04	.5091169E+06	.1166400E+07	.2701000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	369	GROUP NUMBER	2
1000000E+01	2000000E+03	2000000E+03	1000000E+01
3162278E+00	1800000E+02	4000000E+05	5832000E+04
3162278E+00	5832000E+04	1800000E+02	1000000E+01
3600000E+04	7200000E+06	1166400E+07	2881000E+00
1837117E+01	3674235E+03	2000000E+03	2449490E+03
3162278E+00	3305811E+02	4000000E+05	7348469E+05
3872983E+00	7142712E+04	1800000E+02	1837117E+04
4409082E+04	8818163E+06	1166400E+07	3087000E+00
2828427E+01	5656854E+03	2000000E+03	2828427E+03
3162278E+00	5091169E+02	4000000E+05	1131371E+06
4472136E+00	8247693E+04	1800000E+02	2828427E+04
5091169E+04	1018234E+07	1166400E+07	3323000E+00
3952847E+01	7905694E+03	2000000E+03	3162278E+03
3162278E+00	7115125E+02	4000000E+05	1581139E+06
5000000E+00	9221202E+04	1800000E+02	3952847E+04
5692100E+04	1128420E+07	1166400E+07	3576000E+00
4192374E+01	8384748E+03	2000000E+03	3224903E+03
3162278E+00	7546273E+02	4000000E+05	1676950E+06
5099020E+00	9403817E+04	1800000E+02	4192374E+04
5804826E+04	1160965E+07	1166400E+07	3634000E+00
4436553E+01	8873105E+03	2000000E+03	3286335E+03
3162278E+00	7985795E+02	4000000E+05	1774621E+06
5196152E+00	9582954E+04	1800000E+02	4436553E+04
5915404E+04	1183081E+07	1166400E+07	3694000E+00
4685296E+01	9370592E+03	2000000E+03	3346640E+03
3162278E+00	843533E+02	4000000E+05	1874118E+06
5291503E+00	9758803E+04	1800000E+02	4685296E+04
6023552E+04	1204790E+07	1166400E+07	3756000E+00
0.	0.	2000000E+030.	0.
2886751E+000.	0.	4000000E+050.	5832000E+04
0.	0.	1800000E+020.	5196152E+01
0.	0.	1166400E+07	6912000E+08

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	377	GROUP NUMBER	2
3535534E+00	7071068E+02	2000000E+03	1414214E+03
2886751E+00	6363961E+01	4000000E+05	1414214E+05
2041241E+00	4123847E+04	1800000E+02	6109403E+03
2545584E+04	5091169E+06	1166400E+07	2807000E+00
1000000E+01	2000000E+03	2000000E+03	2000000E+03
2886751E+00	1800000E+02	4000000E+05	5832000E+04
2886751E+00	5832000E+04	1800000E+02	1728000E+04
3600000E+04	7200000E+06	1166400E+07	3012000E+00
1837117E+01	3674235E+03	2000000E+03	2449490E+03
2886751E+00	3306811E+02	4000000E+05	7348469E+05
3535534E+00	7142712E+04	1800000E+02	3174539E+04
4409082E+04	8818163E+06	1166400E+07	3238000E+00
2828427E+01	5656854E+03	2000000E+03	2828427E+03
2886751E+00	5091169E+02	4000000E+05	1131371E+06
4082483E+00	8247693E+04	1800000E+02	4887522E+04
5091169E+04	1018234E+07	1166400E+07	3490000E+00
3043189E+01	6086378E+03	2000000E+03	2898275E+03
2886751E+00	5477740E+02	4000000E+05	1217276E+06
4183300E+00	8451371E+04	1800000E+02	5258631E+04
5216896E+04	1043379E+07	1166400E+07	3545000E+00
3263127E+01	6526255E+03	2000000E+03	2966479E+03
2886751E+00	5873629E+02	4000000E+05	1305251E+06
4291744E+00	8650254E+04	1800000E+02	5638684E+04
5339663E+04	1067933E+07	1166400E+07	3602000E+00
0.	0.	2000000E+030.	0.
2626129E+000.	0.	4000000E+050.	5832000E+04
0.	0.	1800000E+020.	5196152E+01
0.	0.	1166400E+07	6097250E+060.
3535534E+00	7071068E+02	2000000E+03	1414214E+03
2626129E+00	6363961E+01	4000000E+05	1414214E+05
1856953E+00	4123847E+04	1800000E+02	6107752E+04
2545584E+04	5091169E+06	1166400E+07	2967000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 385
.1000000E+01 .2000000E+03 .2000000E+03 .2000000E+03 .1000000E+01 .2626129E+00 .1800000E+02 .3048625E+04
.2626129E+00 .1800000E+02 .4000000E+05 .4000000E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.2626129E+00 .5832000E+04 .1800000E+02 .3048625E+04 .3600000E+04 .6097250E+06 .7200000E+06 .5832000E+04
.3600000E+04 .7200000E+06 .1166400E+07 .3173000E+00
GROUP NUMBER 2
.1237117E+01 .3674235E+03 .2000000E+03 .2449490E+03 .1224745E+01 .4824506E+00 .2204541E+02 .3048625E+04
.2626129E+00 .3306811E+02 .4000000E+05 .7348469E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.3216338E+00 .7142712E+04 .1800000E+02 .560682E+04 .5613622E+04 .6097250E+06 .1322724E+07 .1071407E+05
.4409082E+04 .8818163E+06 .1166400E+07 .3419000E+00
GROUP NUMBER 2
.2023858E+01 .4047715E+03 .2000000E+03 .2529822E+03 .1264911E+01 .5314911E+00 .2276840E+02 .3048625E+04
.2626129E+00 .3642944E+02 .4000000E+05 .8095431E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.3321819E+00 .7376961E+04 .1800000E+02 .6169983E+04 .7285888E+04 .6097250E+06 .1457178E+07 .1180314E+05
.4553680E+04 .9107360E+06 .1166400E+07 .3475000E+00
GROUP NUMBER 2
.3779645E+00 .0. .5000000E+020. 0. 0. 0. .3430000E+03
.0. .0. .2500000E+040. .4665600E+05 .1360672E+02 .8575000E+06 .1889822E+02
.0. .0. .3600000E+020. 0. .1715000E+050. 0.
.0. .0. .2332800E+07 .2938000E+00
GROUP NUMBER 2
.3535534E+00 .1767767E+02 .5000000E+02 .3535534E+02 .7071068E+00 .1336306E+00 .2545584E+02 .3430000E+03
.3779645E+00 .1272792E+02 .2500000E+04 .8838835E+03 .4665600E+05 .1360672E+02 .8575000E+06 .1889822E+02
.2672612E+00 .3299077E+05 .3600000E+02 .1212688E+03 .6363961E+03 .1715000E+05 .3181981E+05 .1649539E+05
.1272792E+04 .6363961E+05 .2332800E+07 .3129000E+00
GROUP NUMBER 2
.1000000E+01 .5000000E+02 .5000000E+02 .5000000E+02 .1000000E+01 .3779645E+00 .3600000E+02 .3430000E+03
.3779645E+00 .3600000E+02 .2500000E+04 .2500000E+04 .4665600E+05 .1360672E+02 .8575000E+06 .1889822E+02
.3779645E+00 .4665600E+05 .3600000E+02 .3430000E+03 .1800000E+04 .1715000E+05 .9000000E+05 .4665600E+05
.1800000E+04 .9000000E+05 .2332800E+07 .3347000E+00
GROUP NUMBER 2
.1925290E+01 .9626448E+02 .5000000E+02 .6220167E+02 .1244033E+01 .7276911E+00 .4478520E+02 .3430000E+03
.3779645E+00 .6931043E+02 .2500000E+04 .4813224E+04 .4665600E+05 .1360672E+02 .8575000E+06 .1889822E+02
.4702004E+00 .5804162E+05 .3600000E+02 .6603744E+03 .3465521E+04 .1715000E+05 .1732761E+06 .8982631E+05
.2239260E+04 .1119630E+06 .2332800E+07 .3605000E+00
GROUP NUMBER 2
.2828427E+01 .1414214E+03 .5000000E+02 .7071068E+02 .1414214E+01 .1069045E+01 .5091169E+02 .3430000E+03
.3779645E+00 .1018234E+03 .2500000E+04 .7071068E+04 .4665600E+05 .1360672E+02 .8575000E+06 .1889822E+02
.5345255E+00 .6598155E+05 .3600000E+02 .9701505E+03 .5091169E+04 .1715000E+05 .2545584E+06 .1319631E+06
.2545584E+04 .1272792E+06 .2332800E+07 .3864000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 393
.3952847E+01 .1976424E+03 .5000000E+02 .7905694E+02 .1581139E+01 .1494036E+01 .5692100E+02 .3430000E+03
.3779645E+00 .1423025E+03 .2500000E+04 .9882118E+04 .4665600E+05 .1360672E+02 .8575000E+06 .1889822E+02
.5976143E+00 .7376961E+05 .3600000E+02 .1355827E+04 .7115125E+04 .1715000E+05 .3557562E+06 .1844240E+06
.2846050E+04 .1423025E+06 .2332800E+07 .4193000E+00
GROUP NUMBER 2
.5196152E+01 .2598076E+03 .5000000E+02 .8660254E+02 .1732051E+01 .1963961E+01 .6235383E+02 .3430000E+03
.3779645E+00 .1870615E+03 .2500000E+04 .1299038E+05 .4665600E+05 .1360672E+02 .8575000E+06 .1889822E+02
.6546537E+00 .8081056E+05 .3600000E+02 .1782280E+04 .9353074E+04 .1715000E+05 .4676537E+06 .2424317E+06
.3117691E+04 .1558846E+06 .2332800E+07 .4488000E+00
GROUP NUMBER 2
.6547900E+01 .3273950E+03 .5000000E+02 .9354143E+02 .1870829E+01 .2474874E+01 .6734983E+02 .3430000E+03
.3779645E+00 .2257244E+03 .2500000E+04 .1636975E+05 .4665600E+05 .1360672E+02 .8575000E+06 .1889822E+02
.7071068E+00 .8728538E+05 .3600000E+02 .2245930E+04 .1178622E+05 .1715000E+05 .5893110E+06 .3054988E+06
.3367492E+04 .1683746E+06 .2332800E+07 .4844000E+00
GROUP NUMBER 2
.8000000E+01 .4000000E+03 .5000000E+02 .1000000E+03 .2000000E+01 .3023716E+01 .7200000E+02 .3430000E+03
.3779645E+00 .2880000E+03 .2500000E+04 .2000000E+05 .4665600E+05 .1360672E+02 .8575000E+06 .1889822E+02
.7559289E+00 .9331200E+05 .3600000E+02 .2744000E+04 .1440000E+05 .1715000E+05 .7200000E+06 .3732480E+06
.3600000E+04 .1800000E+06 .2332800E+07 .5174000E+00
GROUP NUMBER 2
.8301867E+01 .4150934E+03 .5000000E+02 .1012423E+03 .2024846E+01 .3137811E+01 .7289444E+02 .3430000E+03
.3779645E+00 .2988672E+03 .2500000E+04 .2075467E+05 .4665600E+05 .1360672E+02 .8575000E+06 .1889822E+02
.7653197E+00 .9447120E+05 .3600000E+02 .2847540E+04 .1494336E+05 .1715000E+05 .7471681E+06 .3873319E+06
.3644722E+04 .1822361E+06 .2332800E+07 .5285000E+00
GROUP NUMBER 2
.8607439E+01 .4303719E+03 .5000000E+02 .1024695E+03 .2049390E+01 .3253306E+01 .7377805E+02 .3430000E+03
.3779645E+00 .3098678E+03 .2500000E+04 .2151860E+05 .4665600E+05 .1360672E+02 .8575000E+06 .1889822E+02
.7745967E+00 .9561635E+05 .3600000E+02 .2952351E+04 .1549339E+05 .1715000E+05 .7746695E+06 .4015887E+06
.3888902E+04 .1844451E+06 .2332800E+07 .5401000E+00
GROUP NUMBER 2
.3333333E+00 .0. .5000000E+020. 0. 0. 0. .7290000E+03
.3333333E+00 .0. .2500000E+040. .4665600E+05 .1200000E+02 .1822500E+07 .1666667E+02
.0. .0. .3600000E+020. 0. .3645000E+050. 0.
.0. .0. .2332800E+07 .3018000E+00
GROUP NUMBER 2
.3535534E+00 .1767767E+02 .5000000E+02 .3535534E+02 .7071068E+00 .1178511E+00 .2545584E+02 .7290000E+03
.3333333E+00 .1272792E+02 .2500000E+04 .8838835E+03 .4665600E+05 .1200000E+02 .1822500E+07 .1666667E+02
.2357023E+00 .3299077E+05 .3600000E+02 .2577404E+03 .6363961E+03 .3645000E+05 .3181981E+05 .1649539E+05
.1272792E+04 .6363961E+05 .2332800E+07 .3281000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER 401 GROUP NUMBER 2  
1.000000E+01 .500000E+02 .500000E+02 .500000E+02 .100000E+01 .333333E+00 .360000E+02 .729000E+03  
.333333E+00 .360000E+02 .250000E+04 .250000E+04 .466560E+05 .120000E+02 .182250E+07 .166667E+02  
.333333E+00 .466560E+05 .360000E+02 .729000E+03 .180000E+04 .364500E+05 .900000E+05 .466560E+05  
-1.800000E+04 .900000E+05 .233280E+07 .355600E+00  
CASE NUMBER 402 GROUP NUMBER 2  
1.837117E+01 .918558E+02 .500000E+02 .612372E+02 .122474E+01 .612372E+02 .440908E+02 .729000E+03  
.333333E+00 .661362E+02 .250000E+04 .459279E+04 .466560E+05 .120000E+02 .182250E+07 .166667E+02  
.408283E+00 .571417E+05 .360000E+02 .133925E+04 .330681E+04 .364500E+05 .165340E+06 .857125E+05  
-2.204541E+04 .110227E+06 .233280E+07 .384600E+00  
CASE NUMBER 403 GROUP NUMBER 2  
2.828427E+01 .141421E+03 .500000E+02 .707106E+02 .141421E+01 .942809E+00 .509116E+02 .729000E+03  
.333333E+00 .101823E+03 .250000E+04 .707106E+04 .466560E+05 .120000E+02 .182250E+07 .166667E+02  
.471404E+00 .659815E+05 .360000E+02 .206192E+04 .509116E+04 .364500E+05 .254558E+06 .131963E+06  
-2.545584E+04 .127292E+06 .233280E+07 .413100E+00  
CASE NUMBER 404 GROUP NUMBER 2  
3.952847E+01 .197642E+03 .500000E+02 .790569E+02 .158113E+01 .131761E+01 .569210E+02 .729000E+03  
.333333E+00 .142302E+03 .250000E+04 .988211E+04 .466560E+05 .120000E+02 .182250E+07 .166667E+02  
5.270463E+00 .737696E+05 .360000E+02 .288162E+04 .711512E+04 .364500E+05 .355756E+06 .184424E+06  
-2.846050E+04 .142302E+06 .233280E+07 .439500E+00  
CASE NUMBER 405 GROUP NUMBER 2  
5.196152E+01 .259807E+03 .500000E+02 .866025E+02 .173205E+01 .173205E+01 .623538E+02 .729000E+03  
.333333E+00 .187061E+03 .250000E+04 .129903E+05 .466560E+05 .120000E+02 .182250E+07 .166667E+02  
5.773503E+00 .808105E+05 .360000E+02 .378799E+04 .935307E+04 .364500E+05 .467653E+06 .242431E+06  
-3.117691E+04 .155884E+06 .233280E+07 .477800E+00  
CASE NUMBER 406 GROUP NUMBER 2  
6.547900E+01 .327395E+03 .500000E+02 .935414E+02 .187082E+01 .218263E+01 .673498E+02 .729000E+03  
.333333E+00 .235724E+03 .250000E+04 .163697E+05 .466560E+05 .120000E+02 .182250E+07 .166667E+02  
6.236096E+00 .872853E+05 .360000E+02 .477341E+04 .117862E+05 .364500E+05 .589311E+06 .305498E+06  
-3.367492E+04 .168374E+06 .233280E+07 .518900E+00  
CASE NUMBER 407 GROUP NUMBER 2  
6.830520E+01 .341526E+03 .500000E+02 .948683E+02 .189736E+01 .227684E+01 .683052E+02 .729000E+03  
.333333E+00 .245898E+03 .250000E+04 .170763E+05 .466560E+05 .120000E+02 .182250E+07 .166667E+02  
6.324555E+00 .885235E+05 .360000E+02 .497949E+04 .122949E+05 .364500E+05 .614746E+06 .318684E+06  
-3.415260E+04 .170763E+06 .233280E+07 .531500E+00  
CASE NUMBER 408 GROUP NUMBER 2  
0. 0. .500000E+02 0. 0. 0. 1.000000E+04  
3.162278E+00 .250000E+04 0. 4.665600E+05 .113842E+02 .250000E+07 .158113E+02  
0. 0. .360000E+02 0. 0. .500000E+05 0.  
0. 0. .233280E+07 .310800E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER 409 GROUP NUMBER 2  
3.353534E+00 .176776E+02 .500000E+02 .353534E+02 .707106E+00 .111803E+00 .254558E+02 .100000E+04  
3.162278E+00 .127279E+02 .250000E+04 .883835E+03 .466560E+05 .113842E+02 .250000E+07 .158113E+02  
2.236068E+00 .328907E+05 .360000E+02 .353534E+03 .636396E+03 .500000E+05 .318198E+05 .164939E+05  
-1.272782E+04 .636396E+05 .233280E+07 .338200E+00  
CASE NUMBER 410 GROUP NUMBER 2  
1.000000E+01 .500000E+02 .500000E+02 .500000E+02 .100000E+01 .316227E+00 .360000E+02 .100000E+04  
3.162278E+00 .360000E+02 .250000E+04 .250000E+04 .466560E+05 .113842E+02 .250000E+07 .158113E+02  
3.162278E+00 .466560E+05 .360000E+02 .100000E+04 .180000E+04 .500000E+05 .900000E+05 .466560E+05  
-1.800000E+04 .500000E+05 .233280E+07 .366600E+00  
CASE NUMBER 411 GROUP NUMBER 2  
1.837117E+01 .918558E+02 .500000E+02 .612372E+02 .122474E+01 .580947E+00 .440908E+02 .100000E+04  
3.162278E+00 .661362E+02 .250000E+04 .459279E+04 .466560E+05 .113842E+02 .250000E+07 .158113E+02  
3.872983E+00 .571417E+05 .360000E+02 .183711E+04 .330681E+04 .500000E+05 .165340E+06 .857125E+05  
-2.204541E+04 .110227E+06 .233280E+07 .395400E+00  
CASE NUMBER 412 GROUP NUMBER 2  
2.778070E+01 .138903E+03 .500000E+02 .702885E+02 .140577E+01 .878502E+00 .506077E+02 .100000E+04  
3.162278E+00 .100010E+03 .250000E+04 .694517E+04 .466560E+05 .113842E+02 .250000E+07 .158113E+02  
4.445436E+00 .655876E+05 .360000E+02 .277807E+04 .500052E+04 .500000E+05 .250026E+06 .129613E+06  
-2.530387E+04 .126519E+06 .233280E+07 .421000E+00  
CASE NUMBER 413 GROUP NUMBER 2  
3.952847E+01 .197642E+03 .500000E+02 .790569E+02 .158113E+01 .125000E+01 .569210E+02 .100000E+04  
3.162278E+00 .142302E+03 .250000E+04 .988211E+04 .466560E+05 .113842E+02 .250000E+07 .158113E+02  
5.000000E+00 .737696E+05 .360000E+02 .395284E+04 .711512E+04 .500000E+05 .355756E+06 .184424E+06  
-2.846050E+04 .142302E+06 .233280E+07 .452800E+00  
CASE NUMBER 414 GROUP NUMBER 2  
5.196152E+01 .259807E+03 .500000E+02 .866025E+02 .173205E+01 .164316E+01 .623538E+02 .100000E+04  
3.162278E+00 .187061E+03 .250000E+04 .129903E+05 .466560E+05 .113842E+02 .250000E+07 .158113E+02  
5.477226E+00 .808105E+05 .360000E+02 .519615E+04 .935307E+04 .500000E+05 .467653E+06 .242431E+06  
-3.117691E+04 .155884E+06 .233280E+07 .495300E+00  
CASE NUMBER 415 GROUP NUMBER 2  
5.458131E+01 .272905E+03 .500000E+02 .880340E+02 .176068E+01 .172600E+01 .633845E+02 .100000E+04  
3.162278E+00 .196492E+03 .250000E+04 .136452E+05 .466560E+05 .113842E+02 .250000E+07 .158113E+02  
5.567764E+00 .821463E+05 .360000E+02 .545811E+04 .982460E+04 .500000E+05 .491230E+06 .254653E+06  
-3.169227E+04 .158461E+06 .233280E+07 .505400E+00  
CASE NUMBER 416 GROUP NUMBER 2  
5.724334E+01 .286216E+03 .500000E+02 .894427E+02 .178885E+01 .181019E+01 .643987E+02 .100000E+04  
3.162278E+00 .206076E+03 .250000E+04 .143108E+05 .466560E+05 .113842E+02 .250000E+07 .158113E+02  
5.656854E+00 .834607E+05 .360000E+02 .572433E+04 .103038E+05 .500000E+05 .515190E+06 .267074E+06  
-3.219938E+04 .160996E+06 .233280E+07 .514700E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 417
.5994748E+01-.2997374E+03-.5000000E+02-.9082951E+02 .1816590E+01 .1895706E+01 .6539725E+02 .1000000E+04
.3162278E+00 .2158109E+03 .2500000E+04 .1498687E+05 .4665600E+05 .1138420E+02 .2500000E+07-.1581139E+02
.5744563E+00 .8475483E+05 .3600000E+02 .5994748E+04-.1079055E+05-.5000000E+05 .5395273E+06 .2796909E+06
-.3269862E+04 .1634931E+06-.2332800E+07 .5232000E+00
CASE NUMBER 418
.6269290E+01-.3134645E+03-.5000000E+02-.9219544E+02 .1843909E+01 .1982524E+01 .6638072E+02 .1000000E+04
.3162278E+00 .2256944E+03 .2500000E+04 .1567323E+05 .4665600E+05 .1138420E+02 .2500000E+07-.1581139E+02
.5830952E+00 .8602941E+05 .3600000E+02 .6269290E+04-.1128472E+05-.5000000E+05 .5642361E+06 .2925000E+06
-.3319036E+04 .1659518E+06-.2332800E+07 .5332000E+00
CASE NUMBER 419
0. 0. -.5000000E+020. 0. 0. 0. 0. 0. 1728000E+04
.2886751E+000. .2500000E+040. .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02
0. 0. .3600000E+020. 0. -.8640000E+050. 0.
0. 0. -.2332800E+07 .3263000E+00
CASE NUMBER 420
.3535534E+00-.1767767E+02-.5000000E+02-.3535534E+02 .7071068E+00 .1020621E+00 .2545584E+02 .1728000E+04
.2886751E+00 .1272792E+02 .2500000E+04 .8838835E+03 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02
.2041241E+00 .3299077E+05 .3600000E+02 .6109403E+03-.6363961E+03-.8640000E+05 .3181981E+05 .1649539E+05
-.1272792E+04 .6363961E+05-.2332800E+07 .3538000E+00
CASE NUMBER 421
.1000000E+01-.5000000E+02-.5000000E+02-.5000000E+02 .1000000E+01 .2886751E+00 .3600000E+02 .1728000E+04
.2886751E+00 .3600000E+02 .2500000E+04 .2500000E+04 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02
.2886751E+00 .4665600E+05 .3600000E+02 .1728000E+04-.1800000E+04-.8640000E+05 .9000000E+05 .4665600E+05
-.1800000E+04 .9000000E+05-.2332800E+07 .3820000E+00
CASE NUMBER 422
.1837117E+01-.9185587E+02-.5000000E+02-.6123724E+02 .1224745E+01 .5303301E+00 .4409082E+02 .1728000E+04
.2886751E+00 .6613622E+02 .2500000E+04 .4592793E+04 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02
.3535534E+00 .5714170E+05 .3600000E+02 .3174539E+04-.3306811E+04-.8640000E+05 .1653406E+06 .8571255E+05
-.2204541E+04 .1102270E+06-.2332800E+07 .4092000E+00
CASE NUMBER 423
.2828427E+01-.1414214E+03-.5000000E+02-.7071068E+02 .1414214E+01 .8164856E+00 .5091169E+02 .1728000E+04
.2886751E+00 .1018234E+03 .2500000E+04 .7071068E+04 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02
.4082483E+00 .6598155E+05 .3600000E+02 .4887522E+04-.5091169E+04-.8640000E+05 .2545584E+06 .1319631E+06
-.2545584E+04 .1272792E+06-.2332800E+07 .4405000E+00
CASE NUMBER 424
.3952847E+01-.1978424E+03-.5000000E+02-.7905694E+02 .1581139E+01 .1141089E+01 .5692100E+02 .1728000E+04
.2886751E+00 .1423025E+03 .2500000E+04 .9882118E+04 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02
.4564355E+00 .7376961E+05 .3600000E+02 .6830520E+04-.7115125E+04-.8640000E+05 .3557562E+06 .1844240E+06
-.2846050E+04 .1423025E+06-.2332800E+07 .4796000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 425
.4192374E+01-.2096187E+03-.5000000E+02-.8062258E+02 .1612452E+01 .1210234E+01 .5804826E+02 .1728000E+04
.2886751E+00 .1509255E+03 .2500000E+04 .1048094E+05 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02
.4654747E+00 .7523054E+05 .3600000E+02 .7244422E+04-.7546273E+04-.8640000E+05 .3773137E+06 .1955994E+06
-.2902413E+04 .1451206E+06-.2332800E+07 .4892000E+00
CASE NUMBER 426
.4436553E+01-.2218276E+03-.5000000E+02-.8215838E+02 .1643168E+01 .1280722E+01 .5915404E+02 .1728000E+04
.2886751E+00 .1597159E+03 .2500000E+04 .1109138E+05 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02
.4743416E+00 .7666363E+05 .3600000E+02 .7666363E+04-.7985795E+04-.8640000E+05 .3992897E+06 .2069918E+06
-.2957702E+04 .1478851E+06-.2332800E+07 .4992000E+00
CASE NUMBER 427
.4685295E+01-.2342648E+03-.5000000E+02-.8366600E+02 .1673320E+01 .1352528E+01 .6023952E+02 .1728000E+04
.2886751E+00 .1686707E+03 .2500000E+04 .1171324E+05 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02
.4830459E+00 .7807042E+05 .3600000E+02 .8096192E+04-.8433533E+04-.8640000E+05 .4216767E+06 .2185972E+06
-.3011976E+04 .1505988E+06-.2332800E+07 .5081000E+00
CASE NUMBER 428
.4938522E+01-.2469261E+03-.5000000E+02-.8514693E+02 .1702939E+01 .1425629E+01 .6130579E+02 .1728000E+04
.2886751E+00 .1777868E+03 .2500000E+04 .1234631E+05 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02
.4915960E+00 .7945231E+05 .3600000E+02 .8533766E+04-.8889340E+04-.8640000E+05 .4444670E+06 .2304117E+06
-.3065290E+04 .1532645E+06-.2332800E+07 .5176000E+00
CASE NUMBER 429
0. 0. -.5000000E+020. 0. 0. 0. 0. 0. 3048625E+04
.2626129E+000. .2500000E+040. .4665600E+05 .9454063E+01 .7621562E+07-.1313064E+02
0. 0. .3600000E+020. 0. -.1524313E+060. 0.
0. 0. -.2332800E+07 .3393000E+00
CASE NUMBER 430
.3535534E+00-.1767767E+02-.5000000E+02-.3535534E+02 .7071068E+00 .9284767E+01 .2545584E+02 .3048625E+04
.2626129E+00 .1272792E+02 .2500000E+04 .8838835E+03 .4665600E+05 .9454063E+01 .7621562E+07-.1313064E+02
.1856953E+00 .3299077E+05 .3600000E+02 .1077852E+04-.6363961E+03-.1524313E+06 .3181981E+05 .1649539E+05
-.1272792E+04 .6363961E+05-.2332800E+07 .3693000E+00
CASE NUMBER 431
.1000000E+01-.5000000E+02-.5000000E+02-.5000000E+02 .1000000E+01 .2626129E+00 .3600000E+02 .3048625E+04
.2626129E+00 .3600000E+02 .2500000E+04 .2500000E+04 .4665600E+05 .9454063E+01 .7621562E+07-.1313064E+02
.2626129E+00 .4665600E+05 .3600000E+02 .3048625E+04-.1800000E+04-.1524313E+06 .9000000E+05 .4665600E+05
-.1800000E+04 .9000000E+05-.2332800E+07 .3997000E+00
CASE NUMBER 432
.1837117E+01-.9185587E+02-.5000000E+02-.6123724E+02 .1224745E+01 .4824506E+00 .4409082E+02 .3048625E+04
.2626129E+00 .6613622E+02 .2500000E+04 .4592793E+04 .4665600E+05 .9454063E+01 .7621562E+07-.1313064E+02
.3216338E+00 .5714170E+05 .3600000E+02 .5600682E+04-.3306811E+04-.1524313E+06 .1653406E+06 .8571255E+05
-.2204541E+04 .1102270E+06-.2332800E+07 .4302000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 433
.2828427E+01-.1414214E+03-.5000000E+02-.7071068E+02-.1414214E+01-.7427814E+00-.5091169E+02-.3048625E+04
.2626129E+00-.1018234E+03-.2500000E+04-.7071068E+04-.4665600E+05-.9454063E+01-.7621562E+07-.1313064E+02
.3713907E+00-.6598155E+05-.3600000E+02-.8622814E+04-.5091169E+04-.1524313E+06-.2545584E+06-.1319631E+06
-.2545584E+04-.1272792E+06-.2332800E+07-.4671000E+00
CASE NUMBER 434
.3043189E+01-.1521595E+03-.5000000E+02-.7245688E+02-.1449138E+01-.7991806E+00-.5216896E+02-.3048625E+04
.2626129E+00-.1095548E+03-.2500000E+04-.7607973E+04-.4665600E+05-.9454063E+01-.7621562E+07-.1313064E+02
.3805622E+00-.6761097E+05-.3600000E+02-.9277542E+04-.5477740E+04-.1524313E+06-.2738870E+06-.1419830E+06
-.2608448E+04-.1304224E+06-.2332800E+07-.4761000E+00
CASE NUMBER 435
.3263127E+01-.1631564E+03-.5000000E+02-.7416198E+02-.1483240E+01-.8569392E+00-.5339663E+02-.3048625E+04
.2626129E+00-.1174726E+03-.2500000E+04-.8157818E+04-.4665600E+05-.9454063E+01-.7621562E+07-.1313064E+02
.3895178E+00-.6920201E+05-.3600000E+02-.9848052E+04-.5873629E+04-.1524313E+06-.2936815E+06-.1522445E+06
-.2669831E+04-.1334916E+06-.2332800E+07-.4856000E+00
CASE NUMBER 436
.0.0.0.0.0.0.0.3430000E+03
.3779645E+00.0.0.0.4665600E+05.1360672E+020.0.0.
.0.0.3600000E+020.0.0.0.
.0.0.0.2747000E+00
CASE NUMBER 437
.3535534E+000.0.0.7071068E+00.1336306E+00.2545584E+02.3430000E+03
.3779645E+00.1272792E+020.0.4665600E+05.1360672E+020.0.
.2672612E+00.3299077E+05.3600000E+02.1212688E+030.0.1649539E+05
.0.0.0.2919000E+00
CASE NUMBER 438
.1000000E+010.0.0.1000000E+01.3779645E+00.3600000E+02.3430000E+03
.3779645E+00.3600000E+020.0.4665600E+05.1360672E+020.0.
.3779645E+00.4665600E+05.3600000E+02.3430000E+030.0.4665600E+05
.0.0.0.3168000E+00
CASE NUMBER 439
.1837117E+010.0.0.1224745E+01.6943651E+00.4409082E+02.3430000E+03
.3779645E+00.6613622E+020.0.4665600E+05.1360672E+020.0.
.4629100E+00.5714170E+05.3600000E+02.6301312E+030.0.8571255E+05
.0.0.0.3400000E+00
CASE NUMBER 440
.2828427E+010.0.0.1414214E+01.1069045E+01.5091169E+02.3430000E+03
.3779645E+00.1018234E+030.0.4665600E+05.1360672E+020.0.
.5345225E+00.6598155E+05.3600000E+02.9701505E+030.0.1319631E+06
.0.0.0.3632000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 441
.3919014E+010.0.0.1576615E+01.1481248E+01.5675813E+02.3430000E+03
.3779645E+00.1410845E+030.0.4665600E+05.1360672E+020.0.
.5959044E+00.7355854E+05.3600000E+02.1344222E+040.0.1828455E+06
.0.0.0.3879000E+00
CASE NUMBER 442
.5196152E+010.0.0.1732051E+01.1963961E+01.6235383E+02.3430000E+03
.3779645E+00.1870615E+030.0.4665600E+05.1360672E+020.0.
.6546537E+00.8081056E+05.3600000E+02.1782280E+040.0.2424317E+06
.0.0.0.4187000E+00
CASE NUMBER 443
.6547900E+010.0.0.1870829E+01.2474874E+01.6734983E+02.3430000E+03
.3779645E+00.2357244E+030.0.4665600E+05.1360672E+020.0.
.7071068E+00.8728538E+05.3600000E+02.2245930E+040.0.3054988E+06
.0.0.0.4523000E+00
CASE NUMBER 444
.6830520E+010.0.0.1897367E+01.2581694E+01.6830520E+02.3430000E+03
.3779645E+00.2458987E+030.0.4665600E+05.1360672E+020.0.
.7171372E+00.8852354E+05.3600000E+02.2342868E+040.0.3186847E+06
.0.0.0.4580000E+00
CASE NUMBER 445
.7117092E+010.0.0.1923538E+01.2690008E+01.6924738E+02.3430000E+03
.3779645E+00.2562153E+030.0.4665600E+05.1360672E+020.0.
.7270292E+00.8974461E+05.3600000E+02.2441163E+040.0.3320550E+06
.0.0.0.4641000E+00
CASE NUMBER 446
.7407564E+010.0.0.1949359E+01.2799796E+01.7017692E+02.3430000E+03
.3779645E+00.2666723E+030.0.4665600E+05.1360672E+020.0.
.7367884E+00.9094929E+05.3600000E+02.2540784E+040.0.3456073E+06
.0.0.0.4704000E+00
CASE NUMBER 447
.7701883E+010.0.0.1974842E+01.2911038E+01.7109430E+02.3430000E+03
.3779645E+00.2772678E+030.0.4665600E+05.1360672E+020.0.
.7464200E+00.9213822E+05.3600000E+02.2641746E+040.0.3593390E+06
.0.0.0.4770000E+00
CASE NUMBER 448
.8000000E+010.0.0.2000000E+01.3023716E+01.7200000E+02.3430000E+03
.3779645E+00.2880000E+030.0.4665600E+05.1360672E+020.0.
.7559289E+00.9331200E+05.3600000E+02.2744000E+040.0.3732480E+06
.0.0.0.4838000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	449			GROUP NUMBER	2	
0.	0.	0.	0.	0.	0.	.7290000E+03
.333333E+00	0.	0.	.4665600E+05	.1200000E+020.	0.	0.
0.	0.	.3600000E+020.	0.	0.	0.	0.
0.	0.	.2884000E+00	0.	0.	0.	0.
CASE NUMBER	450			GROUP NUMBER	2	
.353534E+00	0.	0.	.7071068E+00	.1178511E+00	.2545584E+02	.7290000E+03
.333333E+00	.1272792E+020.	0.	.4665600E+05	.1200000E+020.	0.	0.
.2357023E+00	.3299077E+05	.3600000E+02	.2577404E+030.	0.	0.	.1649539E+05
0.	0.	0.	.3109000E+00	0.	0.	0.
CASE NUMBER	451			GROUP NUMBER	2	
.1000000E+010.	0.	0.	.1000000E+01	.333333E+00	.3600000E+02	.7290000E+03
.333333E+00	.3600000E+020.	0.	.4665600E+05	.1200000E+020.	0.	0.
.333333E+00	.4665600E+05	.3600000E+02	.7290000E+030.	0.	0.	.4665600E+05
0.	0.	0.	.3341000E+00	0.	0.	0.
CASE NUMBER	452			GROUP NUMBER	2	
.1837117E+010.	0.	0.	.1224745E+01	.6123724E+00	.4409082E+02	.7290000E+03
.333333E+00	.6613622E+020.	0.	.4665600E+05	.1200000E+020.	0.	0.
.4082483E+00	.5714170E+05	.3600000E+02	.1339259E+040.	0.	0.	.8571255E+05
0.	0.	0.	.3559000E+00	0.	0.	0.
CASE NUMBER	453			GROUP NUMBER	2	
.2828427E+010.	0.	0.	.1414214E+01	.9428090E+00	.5091169E+02	.7290000E+03
.333333E+00	.1018234E+030.	0.	.4665600E+05	.1200000E+020.	0.	0.
.4714045E+00	.6598155E+05	.3600000E+02	.2061923E+040.	0.	0.	.1319631E+06
0.	0.	0.	.3820000E+00	0.	0.	0.
CASE NUMBER	454			GROUP NUMBER	2	
.3952847E+010.	0.	0.	.1581139E+01	.1317616E+01	.5692100E+02	.7290000E+03
.333333E+00	.1423025E+030.	0.	.4665600E+05	.1200000E+020.	0.	0.
.5270463E+00	.7376961E+05	.3600000E+02	.2881626E+040.	0.	0.	.1844240E+06
0.	0.	0.	.4123000E+00	0.	0.	0.
CASE NUMBER	455			GROUP NUMBER	2	
.5196152E+010.	0.	0.	.1732051E+01	.1732051E+01	.6235383E+02	.7290000E+03
.333333E+00	.1870615E+030.	0.	.4665600E+05	.1200000E+020.	0.	0.
.5773503E+00	.8081056E+05	.3600000E+02	.3787995E+040.	0.	0.	.2424317E+06
0.	0.	0.	.4452000E+00	0.	0.	0.
CASE NUMBER	456			GROUP NUMBER	2	
.5458113E+010.	0.	0.	.1760682E+01	.1819371E+01	.6338454E+02	.7290000E+03
.333333E+00	.1964921E+030.	0.	.4665600E+05	.1200000E+020.	0.	0.
.5868939E+00	.8214636E+05	.3600000E+02	.3978965E+040.	0.	0.	.2546537E+06
0.	0.	0.	.4526000E+00	0.	0.	0.

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	457			GROUP NUMBER	2	
.5724334E+010.	0.	0.	.1788854E+01	.1908111E+01	.6439876E+02	.7290000E+03
.333333E+00	.2060760E+030.	0.	.4665600E+05	.1200000E+020.	0.	0.
.5962848E+00	.8346079E+05	.3600000E+02	.4173040E+040.	0.	0.	.2670745E+06
0.	0.	0.	.4601000E+00	0.	0.	0.
CASE NUMBER	458			GROUP NUMBER	2	
.5994748E+010.	0.	0.	.1816590E+01	.1998249E+01	.6539725E+02	.7290000E+03
.333333E+00	.2158109E+030.	0.	.4665600E+05	.1200000E+020.	0.	0.
.6055301E+00	.8475483E+05	.3600000E+02	.4370171E+040.	0.	0.	.2796909E+06
0.	0.	0.	.4685000E+00	0.	0.	0.
CASE NUMBER	459			GROUP NUMBER	2	
.6269290E+010.	0.	0.	.1843909E+01	.2089763E+01	.6638072E+02	.7290000E+03
.333333E+00	.2256944E+030.	0.	.4665600E+05	.1200000E+020.	0.	0.
.6146363E+00	.8602941E+05	.3600000E+02	.4570313E+040.	0.	0.	.2925000E+06
0.	0.	0.	.4770000E+00	0.	0.	0.
CASE NUMBER	460			GROUP NUMBER	2	
.6547900E+010.	0.	0.	.1870829E+01	.2182633E+01	.6734983E+02	.7290000E+03
.333333E+00	.2357244E+030.	0.	.4665600E+05	.1200000E+020.	0.	0.
.6236096E+00	.8728538E+05	.3600000E+02	.4773419E+040.	0.	0.	.3054988E+06
0.	0.	0.	.4855000E+00	0.	0.	0.
CASE NUMBER	461			GROUP NUMBER	2	
0.	0.	0.	0.	0.	0.	.1000000E+04
.3162278E+000.	0.	0.	.4665600E+05	.1138420E+020.	0.	0.
0.	0.	.3600000E+020.	0.	0.	0.	0.
0.	0.	0.	.2942000E+00	0.	0.	0.
CASE NUMBER	462			GROUP NUMBER	2	
.353534E+000.	0.	0.	.7071068E+00	.1118034E+00	.2545584E+02	.1000000E+04
.3162278E+00	.1272792E+020.	0.	.4665600E+05	.1138420E+020.	0.	0.
.2236068E+00	.3299077E+05	.3600000E+02	.353534E+030.	0.	0.	.1649539E+05
0.	0.	0.	.3178000E+00	0.	0.	0.
CASE NUMBER	463			GROUP NUMBER	2	
.1000000E+010.	0.	0.	.1000000E+01	.3162278E+00	.3600000E+02	.1000000E+04
.3162278E+00	.3600000E+020.	0.	.4665600E+05	.1138420E+020.	0.	0.
.3162278E+00	.4665600E+05	.3600000E+02	.1000000E+040.	0.	0.	.4665600E+05
0.	0.	0.	.3299000E+00	0.	0.	0.
CASE NUMBER	464			GROUP NUMBER	2	
.1837117E+010.	0.	0.	.1224745E+01	.5809475E+00	.4409082E+02	.1000000E+04
.3162278E+00	.6613622E+020.	0.	.4665600E+05	.1138420E+020.	0.	0.
.3872983E+00	.5714170E+05	.3600000E+02	.1837117E+040.	0.	0.	.8571255E+05
0.	0.	0.	.3645000E+00	0.	0.	0.

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	465	0.	0.	GROUP NUMBER	2	0.	0.
.2828427E+010.	.1018234E+030.	.3600000E+02	.2828427E+040.	.1414214E+01	.8944272E+00	.5091169E+02	.1000000E+04
.3162278E+00	.1018234E+030.	.3600000E+02	.2828427E+040.	.4665600E+05	.1138420E+020.	0.	0.
.4472136E+00	.6598155E+05	.3600000E+02	.3523000E+00	0.	0.	0.	.1319631E+05
0.	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	466	0.	0.	GROUP NUMBER	2	0.	0.
.3952847E+010.	.1423025E+030.	.3600000E+02	.3952847E+040.	.1581139E+01	.1250000E+01	.5692100E+02	.1000000E+04
.3162278E+00	.1423025E+030.	.3600000E+02	.3952847E+040.	.4665600E+05	.1138420E+020.	0.	0.
.5000000E+00	.7376961E+05	.3600000E+02	.4233000E+00	0.	0.	0.	.1844240E+05
0.	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	467	0.	0.	GROUP NUMBER	2	0.	0.
.5196152E+010.	.1870515E+030.	.3600000E+02	.5196152E+040.	.1732051E+01	.1643168E+01	.6235383E+02	.1000000E+04
.3162278E+00	.1870515E+030.	.3600000E+02	.5196152E+040.	.4665600E+05	.1138420E+020.	0.	0.
.5477226E+00	.8081056E+05	.3600000E+02	.4587000E+00	0.	0.	0.	.2424317E+05
0.	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	468	0.	0.	GROUP NUMBER	2	0.	0.
.5458113E+010.	.1984921E+030.	.3600000E+02	.5458113E+040.	.1760882E+01	.1726007E+01	.6338454E+02	.1000000E+04
.3162278E+00	.1984921E+030.	.3600000E+02	.5458113E+040.	.4665600E+05	.1138420E+020.	0.	0.
.5567764E+00	.8214636E+05	.3600000E+02	.4668000E+00	0.	0.	0.	.2546537E+05
0.	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	469	0.	0.	GROUP NUMBER	2	0.	0.
.5724334E+010.	.2060760E+030.	.3600000E+02	.5724334E+040.	.1788854E+01	.1810193E+01	.6439876E+02	.1000000E+04
.3162278E+00	.2060760E+030.	.3600000E+02	.5724334E+040.	.4665600E+05	.1138420E+020.	0.	0.
.5656854E+00	.8346079E+05	.3600000E+02	.4754000E+00	0.	0.	0.	.2670745E+05
0.	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	470	0.	0.	GROUP NUMBER	2	0.	0.
.2886751E+000.	0.	0.	0.	0.	0.	0.	.1728000E+04
.2886751E+000.	0.	0.	0.	.4665600E+05	.1039230E+020.	0.	0.
0.	0.	.3600000E+020.	0.	0.	0.	0.	0.
0.	0.	0.	.3026000E+00	0.	0.	0.	0.
CASE NUMBER	471	0.	0.	GROUP NUMBER	2	0.	0.
.3535534E+000.	.1272792E+020.	.3600000E+02	.6109403E+030.	.7071068E+00	.1020621E+00	.2545584E+02	.1728000E+04
.2886751E+00	.1272792E+020.	.3600000E+02	.6109403E+030.	.4665600E+05	.1039230E+020.	0.	0.
.2041241E+00	.3299077E+05	.3600000E+02	.3287000E+00	0.	0.	0.	.1649539E+05
0.	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	472	0.	0.	GROUP NUMBER	2	0.	0.
.1000000E+010.	0.	0.	0.	.1000000E+01	.2886751E+00	.3600000E+02	.1728000E+04
.2886751E+00	.3600000E+020.	.3600000E+02	.1728000E+040.	.4665600E+05	.1039230E+020.	0.	0.
.2886751E+00	.4665600E+05	.3600000E+02	.3546000E+00	0.	0.	0.	.4665600E+05
0.	0.	0.	0.	0.	0.	0.	0.

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	473	0.	0.	GROUP NUMBER	2	0.	0.
.1837117E+010.	.6613622E+020.	.3600000E+02	.3174539E+040.	.1224745E+01	.5303301E+00	.4409082E+02	.1728000E+04
.2886751E+00	.6613622E+020.	.3600000E+02	.3174539E+040.	.4665600E+05	.1039230E+020.	0.	0.
.3535534E+00	.5714170E+05	.3600000E+02	.3817000E+00	0.	0.	0.	.8571255E+05
0.	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	474	0.	0.	GROUP NUMBER	2	0.	0.
.2828427E+010.	.1018234E+030.	.3600000E+02	.4887522E+040.	.1414214E+01	.8164966E+00	.5091169E+02	.1728000E+04
.2886751E+00	.1018234E+030.	.3600000E+02	.4887522E+040.	.4665600E+05	.1039230E+020.	0.	0.
.4082483E+00	.6598155E+05	.3600000E+02	.4125000E+00	0.	0.	0.	.1319631E+05
0.	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	475	0.	0.	GROUP NUMBER	2	0.	0.
.3952847E+010.	.1423025E+030.	.3600000E+02	.6830520E+040.	.1581139E+01	.1141089E+01	.5692100E+02	.1728000E+04
.2886751E+00	.1423025E+030.	.3600000E+02	.6830520E+040.	.4665600E+05	.1039230E+020.	0.	0.
.4564355E+00	.7376961E+05	.3600000E+02	.4458000E+00	0.	0.	0.	.1844240E+05
0.	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	476	0.	0.	GROUP NUMBER	2	0.	0.
.4192374E+010.	.1509255E+030.	.3600000E+02	.7244422E+040.	.1612452E+01	.1210234E+01	.5804826E+02	.1728000E+04
.2886751E+00	.1509255E+030.	.3600000E+02	.7244422E+040.	.4665600E+05	.1039230E+020.	0.	0.
.4654747E+00	.7523054E+05	.3600000E+02	.4532000E+00	0.	0.	0.	.1955994E+05
0.	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	477	0.	0.	GROUP NUMBER	2	0.	0.
.2626129E+000.	0.	0.	0.	0.	0.	0.	.3048625E+04
.2626129E+000.	0.	0.	0.	.4665600E+05	.9454063E+010.	0.	0.
0.	0.	.3600000E+020.	0.	0.	0.	0.	0.
0.	0.	0.	.3163000E+00	0.	0.	0.	0.
CASE NUMBER	478	0.	0.	GROUP NUMBER	2	0.	0.
.3535534E+000.	.1272792E+020.	.3600000E+02	.1077852E+040.	.7071068E+00	.9284767E+01	.2545584E+02	.3048625E+04
.2626129E+00	.1272792E+020.	.3600000E+02	.1077852E+040.	.4665600E+05	.9454063E+010.	0.	0.
.1856953E+00	.3299077E+05	.3600000E+02	.3437000E+00	0.	0.	0.	.1649539E+05
0.	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	479	0.	0.	GROUP NUMBER	2	0.	0.
.1000000E+010.	0.	0.	0.	.1000000E+01	.2626129E+00	.3600000E+02	.3048625E+04
.2626129E+00	.3600000E+020.	.3600000E+02	.3048625E+040.	.4665600E+05	.9454063E+010.	0.	0.
.2626129E+00	.4665600E+05	.3600000E+02	.3730000E+00	0.	0.	0.	.4665600E+05
0.	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	480	0.	0.	GROUP NUMBER	2	0.	0.
.1837117E+010.	.6613622E+020.	.3600000E+02	.5600682E+040.	.1224745E+01	.4824506E+00	.4409082E+02	.3048625E+04
.2626129E+00	.6613622E+020.	.3600000E+02	.5600682E+040.	.4665600E+05	.9454063E+010.	0.	0.
.3216338E+00	.5714170E+05	.3600000E+02	.4032000E+00	0.	0.	0.	.8571255E+05
0.	0.	0.	0.	0.	0.	0.	0.

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	481			GROUP NUMBER	2		
.2023858E+010.	0.	0.	.1254911E+01	.5314911E+00	.4553680E+02	.3048625E+04	
.2626129E+00	.7285888E+020.	0.	.4665600E+05	.9454063E+010.	0.	0.	
.3321819E+00	.5901569E+05	.3600000E+02	.6169983E+040.	0.	0.	.9442510E+05	
0.	0.	0.	.4091000E+00				
CASE NUMBER	482			GROUP NUMBER	2		
.2216529E+010.	0.	0.	.1303840E+01	.5820890E+00	.4693826E+02	.3048625E+04	
.2626129E+00	.7979504E+020.	0.	.4665600E+05	.9454063E+010.	0.	0.	
.3424053E+00	.6083198E+05	.3600000E+02	.6757365E+040.	0.	0.	.1034144E+06	
0.	0.	0.	.4152000E+00				
CASE NUMBER	483			GROUP NUMBER	2		
.2414953E+010.	0.	0.	.1341641E+01	.6341978E+00	.4829907E+02	.3048625E+04	
.2626129E+00	.8693832E+020.	0.	.4665600E+05	.9454063E+010.	0.	0.	
.3523321E+00	.6259559E+05	.3600000E+02	.7362287E+040.	0.	0.	.1126721E+06	
0.	0.	0.	.4216000E+00				
CASE NUMBER	484			GROUP NUMBER	2		
.2618969E+010.	0.	0.	.1378405E+01	.6877750E+00	.4962258E+02	.3048625E+04	
.2626129E+00	.9428289E+020.	0.	.4665600E+05	.9454063E+010.	0.	0.	
.3619869E+00	.6431086E+05	.3600000E+02	.7984255E+040.	0.	0.	.1221906E+06	
0.	0.	0.	.4281000E+00				
CASE NUMBER	485			GROUP NUMBER	2		
.2828427E+010.	0.	0.	.1414214E+01	.7427814E+00	.5091169E+02	.3048625E+04	
.2626129E+00	.1018234E+030.	0.	.4665600E+05	.9454063E+010.	0.	0.	
.3713907E+00	.6598155E+05	.3600000E+02	.8622814E+040.	0.	0.	.1319631E+06	
0.	0.	0.	.4351000E+00				
CASE NUMBER	486			GROUP NUMBER	2		
0.	0.	.1000000E+030.	0.	0.	0.	.3430000E+03	
.3779645E+000.	0.	.1000000E+050.	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02	
0.	0.	.3600000E+020.	0.	.3430000E+050.	0.	0.	
0.	0.	.4665600E+07	.2542000E+00				
CASE NUMBER	487			GROUP NUMBER	2		
.3535534E+00	.3535534E+02	.1000000E+03	.7071068E+02	.7071068E+00	.1336308E+00	.2545584E+02	.3430000E+03
.3779645E+00	.1272792E+02	.1000000E+05	.3535534E+04	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.2672612E+00	.3299077E+05	.3600000E+02	.1212688E+03	.1272792E+04	.3430000E+05	.1272792E+06	.1649539E+05
.2545584E+04	.2545584E+06	.4665600E+07	.2690000E+00				
CASE NUMBER	488			GROUP NUMBER	2		
.1000000E+01	.1000000E+03	.1000000E+03	.1000000E+03	.1000000E+01	.3778645E+00	.3600000E+02	.3430000E+03
.3779645E+00	.3600000E+02	.1000000E+05	.1000000E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.3779645E+00	.4665600E+05	.3600000E+02	.3430000E+03	.3600000E+04	.3430000E+05	.3600000E+06	.4665600E+05
.3600000E+04	.3600000E+06	.4665600E+07	.2848000E+00				

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	489			GROUP NUMBER	2		
.1837117E+01	.1837117E+03	.1000000E+03	.1224745E+03	.1224745E+01	.6943651E+00	.4409082E+02	.3430000E+03
.3779645E+00	.6613622E+02	.1000000E+05	.1837117E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.4629100E+00	.5714170E+05	.3600000E+02	.6301312E+03	.6613622E+04	.3430000E+05	.6613622E+06	.8571255E+05
.4409082E+04	.4409082E+06	.4665600E+07	.3036000E+00				
CASE NUMBER	490			GROUP NUMBER	2		
.2828427E+01	.2828427E+03	.1000000E+03	.1414214E+03	.1414214E+01	.1069045E+01	.5091169E+02	.3430000E+03
.3779645E+00	.1018234E+03	.1000000E+05	.2828427E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.5345225E+00	.6598155E+05	.3600000E+02	.9701505E+03	.1018234E+05	.3430000E+05	.1018234E+07	.1319631E+06
.5091169E+04	.5091169E+06	.4665600E+07	.3241000E+00				
CASE NUMBER	491			GROUP NUMBER	2		
.3952847E+01	.3952847E+03	.1000000E+03	.1581139E+03	.1581139E+01	.1494036E+01	.5692100E+02	.3430000E+03
.3779645E+00	.1423025E+03	.1000000E+05	.3952847E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.5976143E+00	.7376961E+05	.3600000E+02	.1355827E+04	.1423025E+05	.3430000E+05	.1423025E+07	.1844240E+06
.5692100E+04	.5692100E+06	.4665600E+07	.3464000E+00				
CASE NUMBER	492			GROUP NUMBER	2		
.5196152E+01	.5196152E+03	.1000000E+03	.1732051E+03	.1732051E+01	.1963961E+01	.6235383E+02	.3430000E+03
.3779645E+00	.1870615E+03	.1000000E+05	.5196152E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.6546537E+00	.8081056E+05	.3600000E+02	.1782280E+04	.1870615E+05	.3430000E+05	.1870615E+07	.2424317E+06
.6235383E+04	.6235383E+06	.4665600E+07	.3727000E+00				
CASE NUMBER	493			GROUP NUMBER	2		
.6547900E+01	.6547900E+03	.1000000E+03	.1870829E+03	.1870829E+01	.2474874E+01	.6734983E+02	.3430000E+03
.3779645E+00	.2357244E+03	.1000000E+05	.6547900E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.7071068E+00	.8728538E+05	.3600000E+02	.2245930E+04	.2357244E+05	.3430000E+05	.2357244E+07	.3054988E+06
.6734983E+04	.6734983E+06	.4665600E+07	.4046000E+00				
CASE NUMBER	494			GROUP NUMBER	2		
.6830520E+01	.6830520E+03	.1000000E+03	.1897367E+03	.1897367E+01	.2581694E+01	.6830520E+02	.3430000E+03
.3779645E+00	.2458987E+03	.1000000E+05	.6830520E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.7171372E+00	.8852354E+05	.3600000E+02	.2342868E+04	.2458987E+05	.3430000E+05	.2458987E+07	.3186847E+06
.6830520E+04	.6830520E+06	.4665600E+07	.4104000E+00				
CASE NUMBER	495			GROUP NUMBER	2		
.7117092E+01	.7117092E+03	.1000000E+03	.1923538E+03	.1923538E+01	.2690008E+01	.6924738E+02	.3430000E+03
.3779645E+00	.2562153E+03	.1000000E+05	.7117092E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.7270292E+00	.8974461E+05	.3600000E+02	.2441163E+04	.2562153E+05	.3430000E+05	.2562153E+07	.3320550E+06
.6924738E+04	.6924738E+06	.4665600E+07	.4166000E+00				
CASE NUMBER	496			GROUP NUMBER	2		
.7407564E+01	.7407564E+03	.1000000E+03	.1949359E+03	.1949359E+01	.2799796E+01	.7017692E+02	.3430000E+03
.3779645E+00	.2666723E+03	.1000000E+05	.7407564E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.7367884E+00	.9094929E+05	.3600000E+02	.2540794E+04	.2666723E+05	.3430000E+05	.2666723E+07	.3456073E+06
.7017692E+04	.7017692E+06	.4665600E+07	.4232000E+00				

FRIDAY, JUL 2, 1976

FRIDAY, JUL 2, 1976

A -111

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	513	GROUP NUMBER	2
.4436553E+01	.4436553E+03	.1000000E+03	.1643168E+03
.3162278E+00	.1597159E+03	.1000000E+05	.4436553E+05
.5196152E+00	.7666363E+05	.3600000E+02	.4436553E+04
.5915404E+04	.5915404E+06	.4665600E+07	.3931000E+00
CASE NUMBER	514	GROUP NUMBER	2
.4685296E+01	.4685296E+03	.1000000E+03	.1673320E+03
.3162278E+00	.1686707E+03	.1000000E+05	.4685296E+05
.5291503E+00	.7807042E+05	.3600000E+02	.4685296E+04
.6023952E+04	.6023952E+06	.4665600E+07	.4000000E+00
CASE NUMBER	515	GROUP NUMBER	2
0.	0.	.1000000E+030.	0.
.2886751E+000.	0.	.1000000E+050.	.4665600E+05
0.	0.	.3600000E+020.	.1039230E+02
0.	0.	.4665600E+07	.1728000E+08
CASE NUMBER	516	GROUP NUMBER	2
.3535534E+00	.3535534E+02	.1000000E+03	.7071068E+02
.2886751E+00	.1272792E+02	.1000000E+05	.3535534E+04
.2041241E+00	.3298077E+05	.3600000E+02	.6109403E+03
.2545584E+04	.2545584E+06	.4665600E+07	.2953000E+00
CASE NUMBER	517	GROUP NUMBER	2
.1000000E+01	.1000000E+03	.1000000E+03	.1000000E+03
.2886751E+00	.3600000E+02	.1000000E+05	.1000000E+05
.2886751E+00	.4665600E+05	.3600000E+02	.1728000E+04
.3600000E+04	.3600000E+06	.4665600E+07	.3191000E+00
CASE NUMBER	518	GROUP NUMBER	2
.1837117E+01	.1837117E+03	.1000000E+03	.1224745E+03
.2886751E+00	.6613622E+02	.1000000E+05	.1837117E+05
.3535534E+00	.5714170E+05	.3600000E+02	.3174539E+04
.4409082E+04	.4409082E+06	.4665600E+07	.3429000E+00
CASE NUMBER	519	GROUP NUMBER	2
.2828427E+01	.2828427E+03	.1000000E+03	.1414214E+03
.2886751E+00	.1018234E+05	.1000000E+05	.2828427E+05
.4032483E+00	.6598155E+05	.3600000E+02	.4887522E+04
.5091169E+04	.5091169E+06	.4665600E+07	.3704000E+00
CASE NUMBER	520	GROUP NUMBER	2
.3043189E+01	.3043189E+03	.1000000E+03	.1449138E+03
.2886751E+00	.1095548E+05	.1000000E+05	.3043189E+05
.4183200E+00	.6761097E+05	.3600000E+02	.5258631E+04
.5216896E+04	.5216896E+06	.4665600E+07	.3764000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	521	GROUP NUMBER	2
.3263127E+01	.3263127E+03	.1000000E+03	.1483240E+03
.2886751E+00	.1174726E+03	.1000000E+05	.3263127E+05
.4281744E+00	.6920203E+05	.3600000E+02	.5638684E+04
.5339663E+04	.5339663E+06	.4665600E+07	.3826000E+00
CASE NUMBER	522	GROUP NUMBER	2
.3488123E+01	.3488123E+03	.1000000E+03	.1516575E+03
.2886751E+00	.1255724E+03	.1000000E+05	.3488123E+05
.4377975E+00	.7075733E+05	.3600000E+02	.6027476E+04
.5459670E+04	.5459670E+06	.4665600E+07	.3891000E+00
CASE NUMBER	523	GROUP NUMBER	2
0.	0.	.1000000E+030.	0.
.2626129E+000.	0.	.1000000E+050.	.4665600E+05
0.	0.	.3600000E+020.	.9454063E+01
0.	0.	.4665600E+07	.3048625E+08
CASE NUMBER	524	GROUP NUMBER	2
.3535534E+00	.3535534E+02	.1000000E+03	.7071068E+02
.2626129E+00	.1272792E+02	.1000000E+05	.3535534E+04
.1856853E+00	.3298077E+05	.3600000E+02	.1077852E+04
.2545584E+04	.2545584E+06	.4665600E+07	.3096000E+00
CASE NUMBER	525	GROUP NUMBER	2
.1000000E+01	.1000000E+03	.1000000E+03	.1000000E+03
.2626129E+00	.3600000E+02	.1000000E+05	.1000000E+05
.2626129E+00	.4665600E+05	.3600000E+02	.3048625E+08
.3600000E+04	.3600000E+06	.4665600E+07	.3356000E+00
CASE NUMBER	526	GROUP NUMBER	2
.1837117E+01	.1837117E+03	.1000000E+03	.1224745E+03
.2626129E+00	.6613622E+02	.1000000E+05	.1837117E+05
.3216338E+00	.5714170E+05	.3600000E+02	.5600682E+04
.4409082E+04	.4409082E+06	.4665600E+07	.3629000E+00
CASE NUMBER	527	GROUP NUMBER	2
.2023858E+01	.2023858E+03	.1000000E+03	.1264911E+03
.2626129E+00	.7285888E+02	.1000000E+05	.2023858E+05
.3321819E+00	.5901569E+05	.3600000E+02	.6169983E+04
.4553680E+04	.4553680E+06	.4665600E+07	.3688000E+00
CASE NUMBER	528	GROUP NUMBER	2
0.	0.	.2000000E+030.	0.
.3779645E+000.	0.	.4000000E+050.	.4665600E+05
0.	0.	.3600000E+020.	.1360672E+02
0.	0.	.9331200E+07	.1372000E+08

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	529	GROUP NUMBER	2
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.3779645E+00	.1272792E+02	.4000000E+05	.1414214E+05
.2672612E+00	.3299077E+05	.3600000E+02	.1212688E+03
.5091169E+04	.1018234E+07	.9331200E+07	.2471000E+00
CASE NUMBER	530	GROUP NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03
.3779645E+00	.3600000E+02	.4000000E+05	.1360672E+02
.3779645E+00	.4665600E+05	.3600000E+02	.3430000E+03
.7200000E+04	.1440000E+07	.9331200E+07	.2622000E+00
CASE NUMBER	531	GROUP NUMBER	2
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03
.3779645E+00	.6613622E+02	.4000000E+05	.7348469E+05
.4629100E+00	.5714170E+05	.3600000E+02	.6301312E+03
.8818163E+04	.1763633E+07	.9331200E+07	.2788000E+00
CASE NUMBER	532	GROUP NUMBER	2
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03
.3779645E+00	.1018234E+03	.4000000E+05	.1131371E+06
.5345225E+00	.6598155E+05	.3600000E+02	.9701505E+03
.1018234E+05	.2036468E+07	.9331200E+07	.2973000E+00
CASE NUMBER	533	GROUP NUMBER	2
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03
.3779645E+00	.1423025E+03	.4000000E+05	.1581139E+06
.5976143E+00	.7376961E+05	.3600000E+02	.1355827E+04
.1138420E+05	.2276840E+07	.9331200E+07	.3187000E+00
CASE NUMBER	534	GROUP NUMBER	2
.5186152E+01	.1039230E+04	.2000000E+03	.3464102E+03
.3779645E+00	.1870615E+03	.4000000E+05	.2078461E+06
.6546537E+00	.8081056E+05	.3600000E+02	.1782280E+04
.1247077E+05	.2494153E+07	.9331200E+07	.3438000E+00
CASE NUMBER	535	GROUP NUMBER	2
.6547900E+01	.1309580E+04	.2000000E+03	.3741657E+03
.3779645E+00	.2357244E+03	.4000000E+05	.2619160E+06
.7071068E+00	.8728538E+05	.3600000E+02	.2245930E+04
.1346997E+05	.2693933E+07	.9331200E+07	.3733000E+00
CASE NUMBER	536	GROUP NUMBER	2
.6830520E+01	.1366104E+04	.2000000E+03	.3794733E+03
.3779645E+00	.2458987E+03	.4000000E+05	.2732208E+06
.7171372E+00	.8852354E+05	.3600000E+02	.2342868E+04
.1366104E+05	.2732208E+07	.9331200E+07	.3787000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	537	GROUP NUMBER	2
.0.	.0.	.2000000E+030.	.0.
.3333333E+000.	.0.	.4000000E+050.	.4665600E+05
.0.	.0.	.3600000E+020.	.1200000E+02
.0.	.0.	.9331200E+07	.1458000E+060.
CASE NUMBER	538	GROUP NUMBER	2
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.3333333E+00	.1272792E+02	.4000000E+05	.1414214E+05
.2357023E+00	.3299077E+05	.3600000E+02	.2577404E+03
.5091169E+04	.1018234E+07	.9331200E+07	.2572000E+00
CASE NUMBER	539	GROUP NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03
.3333333E+00	.3600000E+02	.4000000E+05	.4000000E+05
.3333333E+00	.4665600E+05	.3600000E+02	.7290000E+03
.7200000E+04	.1440000E+07	.9331200E+07	.2743000E+00
CASE NUMBER	540	GROUP NUMBER	2
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03
.3333333E+00	.6613622E+02	.4000000E+05	.7348469E+05
.4082483E+00	.5714170E+05	.3600000E+02	.1339259E+04
.8818163E+04	.1763633E+07	.9331200E+07	.2939000E+00
CASE NUMBER	541	GROUP NUMBER	2
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03
.3333333E+00	.1018234E+03	.4000000E+05	.1131371E+06
.4714045E+00	.6598155E+05	.3600000E+02	.2061923E+04
.1018234E+05	.2036468E+07	.9331200E+07	.3165000E+00
CASE NUMBER	542	GROUP NUMBER	2
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03
.3333333E+00	.1423025E+03	.4000000E+05	.1581139E+06
.5270463E+00	.7376961E+05	.3600000E+02	.2881626E+04
.1138420E+05	.2276840E+07	.9331200E+07	.3410000E+00
CASE NUMBER	543	GROUP NUMBER	2
.4192374E+01	.8384748E+03	.2000000E+03	.3224903E+03
.3333333E+00	.1509255E+03	.4000000E+05	.1676950E+06
.5374838E+00	.7523054E+05	.3600000E+02	.3056241E+04
.1160955E+05	.2221930E+07	.9331200E+07	.3464000E+00
CASE NUMBER	544	GROUP NUMBER	2
.4436553E+01	.8773105E+03	.2000000E+03	.3286335E+03
.3333333E+00	.1597159E+03	.4000000E+05	.1774621E+06
.5477226E+00	.7666363E+05	.3600000E+02	.3234247E+04
.1183081E+05	.2366161E+07	.9331200E+07	.3519000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	545	GROUP NUMBER	2
.4685296E+01	.9370592E+03	.2000000E+03	.3346640E+03
.3333333E+00	.1686707E+03	.4000000E+05	.1874118E+06
.5577734E+00	.7807042E+05	.3600000E+02	.3415581E+04
.1204790E+05	.2409581E+07	.9331200E+07	.3577000E+00
CASE NUMBER	546	GROUP NUMBER	2
.4938522E+01	.9877044E+03	.2000000E+03	.3405877E+03
.3333333E+00	.1777868E+03	.4000000E+05	.1975409E+06
.5676462E+00	.7945231E+05	.3600000E+02	.3600183E+04
.1226116E+05	.2452232E+07	.9331200E+07	.3638000E+00
CASE NUMBER	547	GROUP NUMBER	2
0.	0.	.2000000E+030.	0.
.3162278E+000.	0.	.4000000E+050.	.4665600E+05
0.	0.	.3600000E+020.	.1138420E+02
0.	0.	.9331200E+07	.2479000E+00
CASE NUMBER	548	GROUP NUMBER	2
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.3162278E+00	.1272792E+02	.4000000E+05	.1414214E+05
.2236068E+00	.3299077E+05	.3600000E+02	.3535534E+03
.5091169E+04	.1018234E+07	.9331200E+07	.2625000E+00
CASE NUMBER	549	GROUP NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03
.3162278E+00	.3600000E+02	.4000000E+05	.4000000E+05
.3162278E+00	.4665600E+05	.3600000E+02	.1000000E+04
.7200000E+04	.1440000E+07	.9331200E+07	.2809000E+00
CASE NUMBER	550	GROUP NUMBER	2
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03
.3162278E+00	.6613622E+02	.4000000E+05	.7348469E+05
.3872983E+00	.5714170E+05	.3600000E+02	.1837117E+04
.8818163E+04	.1763633E+07	.9331200E+07	.3018000E+00
CASE NUMBER	551	GROUP NUMBER	2
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03
.3162278E+00	.1018234E+03	.4000000E+05	.1131371E+06
.4472136E+00	.6598155E+05	.3600000E+02	.2828427E+04
.1018234E+05	.2036468E+07	.9331200E+07	.3254000E+00
CASE NUMBER	552	GROUP NUMBER	2
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03
.3162278E+00	.1423025E+03	.4000000E+05	.1581139E+06
.5000000E+00	.7376961E+05	.3600000E+02	.3952847E+04
.1138420E+05	.2276840E+07	.9331200E+07	.3517000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	553	GROUP NUMBER	2
.4192374E+01	.8384748E+03	.2000000E+03	.3224903E+03
.3162278E+00	.1509255E+03	.4000000E+05	.1676950E+06
.5099020E+00	.7523054E+05	.3600000E+02	.4192374E+04
.1160965E+05	.2321930E+07	.9331200E+07	.3575000E+00
CASE NUMBER	554	GROUP NUMBER	2
0.	0.	.2000000E+030.	0.
.2886751E+000.	0.	.4000000E+050.	.4665600E+05
0.	0.	.3600000E+020.	.1039230E+02
0.	0.	.9331200E+07	.2564000E+00
CASE NUMBER	555	GROUP NUMBER	2
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.2886751E+00	.1272792E+02	.4000000E+05	.1414214E+05
.2041241E+00	.3299077E+05	.3600000E+02	.6109403E+03
.5091169E+04	.1018234E+07	.9331200E+07	.2736000E+00
CASE NUMBER	556	GROUP NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03
.2886751E+00	.3600000E+02	.4000000E+05	.4000000E+05
.2886751E+00	.4665600E+05	.3600000E+02	.1728000E+04
.7200000E+04	.1440000E+07	.9331200E+07	.2943000E+00
CASE NUMBER	557	GROUP NUMBER	2
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03
.2886751E+00	.6613622E+02	.4000000E+05	.7348469E+05
.3535534E+00	.5714170E+05	.3600000E+02	.3174539E+04
.8818163E+04	.1763633E+07	.9331200E+07	.3178000E+00
CASE NUMBER	558	GROUP NUMBER	2
.2023858E+01	.4047715E+03	.2000000E+03	.2529822E+03
.2886751E+00	.7285888E+02	.4000000E+05	.8095431E+05
.3651484E+00	.5801569E+05	.3600000E+02	.3497226E+04
.9107360E+04	.1821472E+07	.9331200E+07	.3227000E+00
CASE NUMBER	559	GROUP NUMBER	2
.2216529E+01	.4433058E+03	.2000000E+03	.2607681E+03
.2886751E+00	.7979504E+02	.4000000E+05	.8866115E+05
.3763863E+00	.6083198E+05	.3600000E+02	.3830162E+04
.9387651E+04	.1877530E+07	.9331200E+07	.3278000E+00
CASE NUMBER	560	GROUP NUMBER	2
.2414953E+01	.4829907E+03	.2000000E+03	.2683282E+03
.2886751E+00	.8693332E+02	.4000000E+05	.9659814E+05
.3872983E+00	.6259559E+05	.3600000E+02	.4173040E+04
.9659814E+04	.1931963E+07	.9331200E+07	.3328000E+00

FRIDAY, JUL 2, 1976

CASE	NUMBER	561			GROUP	NUMBER	2
.2618969E+01	.5237939E+03	.2000000E+03	.2756810E+03	.1378405E+01	.7560313E+00	.4962258E+02	.1728000E+04
.2886751E+00	.9428289E+02	.4000000E+05	.1047588E+06	.4665600E+05	.1039230E+02	.6912000E+08	.5773503E+02
.3979112E+00	.6431086E+05	.3600000E+02	.4525579E+04	.1885658E+05	.3456000E+06	.3771316E+07	.1721906E+06
.9924515E+04	.1984903E+07	.9331200E+07	.3379000E+00				
CASE	NUMBER	562			GROUP	NUMBER	2
.2828427E+01	.5658654E+03	.2000000E+03	.2828427E+03	.1414214E+01	.8164966E+00	.5091169E+02	.1728000E+04
.2886751E+00	.1018234E+03	.4000000E+05	.1131371E+06	.4665600E+05	.1039230E+02	.6912000E+08	.5773503E+02
.4082483E+00	.6598155E+05	.3600000E+02	.4887522E+04	.2036468E+05	.3456000E+06	.4072935E+07	.1319631E+06
.1018234E+05	.2036468E+07	.9331200E+07	.3432000E+00				
CASE	NUMBER	563			GROUP	NUMBER	2
0.	0.	.2000000E+030.	0.	0.	0.	0.	.3048625E+04
.2626129E+000.	0.	.4000000E+050.	0.	.4665600E+05	.9454063E+01	.1219450E+09	.5252257E+02
0.	0.	.3600000E+020.	0.	0.	.6097250E+060.	0.	0.
0.	0.	.9331200E+07	.2675000E+000.				
CASE	NUMBER	564			GROUP	NUMBER	2
.3535534E+00	.5717068E+02	.2000000E+03	.1414214E+03	.7071068E+00	.9284767E+01	.2545584E+02	.3048625E+04
.2626129E+00	.1272782E+02	.4000000E+05	.1414214E+05	.4665600E+05	.9454063E+01	.1219450E+09	.5252257E+02
.1856953E+00	.3298077E+05	.3600000E+02	.1077852E+04	.2545584E+04	.6097250E+06	.5091169E+06	.1649539E+05
.5091169E+04	.1018234E+07	.9331200E+07	.2875000E+00				
CASE	NUMBER	565			GROUP	NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03	.1000000E+01	.2626129E+00	.3600000E+02	.3048625E+04
.2626129E+00	.3600000E+02	.4000000E+05	.4000000E+05	.4665600E+05	.9454063E+01	.1219450E+09	.5252257E+02
.2626129E+00	.4665600E+05	.3600000E+02	.3048625E+04	.7200000E+04	.6097250E+06	.1440000E+07	.4665600E+05
.7200000E+04	.1440000E+07	.9331200E+07	.3115000E+00				
CASE	NUMBER	566			GROUP	NUMBER	2
.1153690E+01	.2307379E+03	.2000000E+03	.2097618E+03	.1048809E+01	.3029738E+00	.3775712E+02	.3048625E+04
.2626129E+00	.4153283E+02	.4000000E+05	.4614759E+05	.4665600E+05	.9454063E+01	.1219450E+09	.5252257E+02
.2754307E+00	.4893323E+05	.3600000E+02	.3517167E+04	.8306566E+04	.6097250E+06	.1861313E+07	.5382655E+05
.7551424E+04	.1510285E+07	.9331200E+07	.3162000E+00				
CASE	NUMBER	567			GROUP	NUMBER	2
.1314534E+01	.2629068E+03	.2000000E+03	.2190890E+03	.1095445E+01	.3452138E+00	.3943602E+02	.3048625E+04
.2626129E+00	.4732323E+02	.4000000E+05	.5258137E+05	.4665600E+05	.9454063E+01	.1219450E+09	.5252257E+02
.2876780E+00	.5110909E+05	.3600000E+02	.4007522E+04	.9484646E+04	.6097250E+06	.1892929E+07	.6133090E+05
.7887205E+04	.1577441E+07	.9331200E+07	.3211000E+00				
CASE	NUMBER	568			GROUP	NUMBER	2
.2828427E+01	.2964456E+03	.2000000E+03	.2280351E+03	.11401			

FRIDAY, JUL 2, 1976

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CASE NUMBER      569                                     GROUP NUMBER      1
.3779645E+000.      .5000000E+020.      0.      0.      .3430000E+03
.      .2500000E+040.      -.5832000E+04-.6803361E+01.8575000E+06-.1889822E+02
0.      .1800000E+020.      0.      -.1715000E+050.      0.
0.      .2916000E+06.3156000E+00
CASE NUMBER      570                                     GROUP NUMBER      1
.3986559E+00-.1993280E+02-.5000000E+02-.3799900E+02.7359801E+00.1506778E+00-.1324764E+02.3430000E+03
.3779645E+00-.7175806E+01-.2500000E+04-.9966398E+03-.5832000E+04-.6803361E+01.8575000E+06-.1889822E+02
.2671743E+00-.4292236E+04-.1800000E+02-.1367390E+03-.3587903E+03-.1715000E+05-.1793952E+06-.2324961E+04
.6628321E+03-.3311910E+05-.2916000E+06.3465000E+00
CASE NUMBER      571                                     GROUP NUMBER      1
.1054707E+01-.5270235E+02-.5000000E+02-.5088502E+02.1017700E+01.3983923E+00-.1831861E+02.3430000E+03
.3779645E+00-.5927825E+02.2500000E+04.2635117E+04.5832000E+04-.6803361E+01.8575000E+06-.1889822E+02
.3846546E+00-.5935292E+04-.1800000E+02.3615381E+03.9486423E+03-.1715000E+05-.4743211E+05-.6147202E+04
.9159304E+03-.4596952E+05.2916000E+06.3750000E+00
CASE NUMBER      572                                     GROUP NUMBER      1
.1837117E+01-.9185587E+02-.5000000E+02-.6123724E+02.1224745E+01.6943651E+00-.2204541E+02.3430000E+03
.3779645E+00-.3306811E+02.2500000E+04.4592793E+04.5832000E+04-.6803361E+01.8575000E+06-.1889822E+02
.4629100E+00-.7142712E+04-.1800000E+02.6301317E+03.1653406E+04-.1715000E+05-.8267028E+05-.1071401E+05
.1102270E+04-.5511352E+05.2916000E+06.3965000E+00
CASE NUMBER      573                                     GROUP NUMBER      1
.2828427E+01-.1414214E+03-.5000000E+02-.7071068E+02.1414214E+01.1069045E+01-.2545584E+02.3430000E+03
.3779645E+00-.5091169E+02.2500000E+04.7071068E+04.5832000E+04-.6803361E+01.8575000E+06-.1889822E+02
.5345225E+00-.8247693E+04-.1800000E+02.9701505E+03.2455846E+04-.1715000E+05-.1272792E+06-.1649539E+05
.1272792E+06-.6363981E+05.2916000E+06.4116000E+00
CASE NUMBER      574                                     GROUP NUMBER      1
.3952847E+01-.1976424E+03-.5000000E+02-.7905694E+02.1581139E+01.1494036E+01-.2846050E+02.3430000E+03
.3779645E+00-.7115125E+02.2500000E+04.9482118E+04.5832000E+04-.6803361E+01.8575000E+06-.1889822E+02
.5976143E+00-.9221202E+04-.1800000E+02.1355827E+04.3557562E+04-.1715000E+05-.1778781E+06-.2305300E+05
.1423025E+04-.7115125E+05.2916000E+06.4374000E+00
CASE NUMBER      575                                     GROUP NUMBER      1
.3951512E+01-.2598076E+03-.5000000E+02-.8660254E+02.1732051E+01.1963361E+01-.3117691E+02.3430000E+03
.3779645E+00-.7118622E+02.2500000E+04.1299038E+05.5832000E+04-.6803361E+01.8575000E+06-.1889822E+02
.5645637E+00-.1010132E+05-.1800000E+02.1782280E+04.4676537E+04-.1715000E+05-.2338269E+06-.3030396E+05
.1558846E+04-.7794229E+05.2916000E+06.4734000E+00
CASE NUMBER      576                                     GROUP NUMBER      1
.6547900E+01-.3273950E+03-.5000000E+02-.9354143E+02.1870829E+01.2474874E+01-.3367492E+02.3430000E+03
.3779645E+00-.7118622E+03.2500000E+04.1636167E+05-.5832000E+04-.6803361E+01.8575000E+06-.1889822E+02
.7071068E+00-.1091067E+05-.1800000E+02.2245930E+04.5893110E+04-.1715000E+05-.2946555E+06-.3618736E+05
.1683746E+04-.8418729E+05.2916000E+06.5211000E+00

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FRIDAY, JUL 2, 1976

FRIDAY, JUL 2, 1976

A -117

FRIDAY, JUL 2, 1976

A -118

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 625
.4436553E+01-.2218276E+03-.5000000E+02-.8215838E+02-.1543168E+01-.1165096E+01-.2957702E+02-.3048625E+04
.2626129E+00-.7985795E+02-.2500000E+04-.1109138E+05-.5832000E+04-.4727032E+01-.7621562E+07-.1313064E+02
.4315170E+00-.9582954E+04-.1800000E+02-.1352539E+05-.3992897E+04-.1524313E+06-.1996449E+06-.2587398E+05
.1478851E+04-.7394255E+05-.2916000E+06-.5494000E+00
CASE NUMBER 626
.4685296E+01-.2342648E+03-.5000000E+02-.8356600E+02-.1673320E+01-.1230419E+01-.3011976E+02-.3048625E+04
.2626129E+00-.8433533E+02-.2500000E+04-.1171324E+05-.5832000E+04-.4727032E+01-.7621562E+07-.1313064E+02
.4384354E+00-.9758803E+04-.1800000E+02-.1428371E+05-.4216767E+04-.1524313E+06-.2108383E+06-.2732465E+05
.1505988E+04-.7529940E+05-.2916000E+06-.5501000E+00
CASE NUMBER 627
0.0.0.0.0.0.0.0.0.3430000E+03
.3779645E+00.0.0.0.-.5832000E+04-.6803361E+010.0.0.
0.0.-.1800000E+020.0.0.0.0.
0.0.0.2925000E+00
CASE NUMBER 628
.353534E+000.0.0.0.7071068E+00.1336306E+00-.1272792E+02.3430000E+03
.3779645E+00-.6363961E+010.0.0.-.5832000E+04-.6803361E+010.0.
.2672612E+00-.4123847E+04-.1800000E+02.1212688E+030.0.0.-.2061923E+04
0.0.0.3190000E+00
CASE NUMBER 629
.1000000E+010.0.0.1000000E+01.3779645E+00-.1800000E+02.3430000E+03
.3779645E+00-.1800000E+020.0.0.-.5832000E+04-.6803361E+010.0.
.3779645E+00-.5832000E+04-.1800000E+02.3430000E+030.0.0.-.5832000E+04
0.0.0.3473000E+00
CASE NUMBER 630
.1739584E+010.0.0.0.1202676E+01.6575011E+00-.2164816E+02.3430000E+03
.3779645E+00-.3131252E+020.0.0.-.5832000E+04-.6803361E+010.0.
.4545686E+00-.7014004E+04-.1800000E+02.5966774E+030.0.0.-.1014526E+05
0.0.0.3663000E+00
CASE NUMBER 631
.2828427E+010.0.0.0.1414214E+01.1069045E+01-.2545584E+02.3430000E+03
.3779645E+00-.5091169E+020.0.0.-.5832000E+04-.6803361E+010.0.
.5345225E+00-.8247693E+04-.1800000E+02.9701505E+030.0.0.-.1649539E+05
0.0.0.3885000E+00
CASE NUMBER 632
.4009451E+010.0.0.0.1588650E+01.1515430E+01-.2859570E+02.3430000E+03
.3779645E+00-.7217011E+020.0.0.-.5832000E+04-.6803361E+010.0.
.6004533E+00-.9265008E+04-.1800000E+02.1375242E+040.0.0.-.2338312E+05
0.0.0.4140000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 633
.5196152E+010.0.0.0.1732051E+01.1963961E+01-.3117691E+02.3430000E+03
.3779645E+00-.9353074E+020.0.0.-.5832000E+04-.6803361E+010.0.
.6546537E+00-.1010132E+05-.1800000E+02.1782280E+040.0.0.-.3030396E+05
0.0.0.4415000E+00
CASE NUMBER 634
.6547900E+010.0.0.0.1870829E+01.2474874E+01-.3367492E+02.3430000E+03
.3779645E+00-.1178622E+030.0.0.-.5832000E+04-.6803361E+010.0.
.7071068E+00-.1091067E+05-.1800000E+02.2245930E+040.0.0.-.3818736E+05
0.0.0.4721000E+00
CASE NUMBER 635
.8000000E+010.0.0.0.2000000E+01.3023716E+01-.3600000E+02.3430000E+03
.3779645E+00-.1440000E+030.0.0.-.5832000E+04-.6803361E+010.0.
.7559289E+00-.1166400E+05-.1800000E+02.2744000E+040.0.0.-.4665600E+05
0.0.0.5066000E+00
CASE NUMBER 636
.8301867E+010.0.0.0.2024846E+01.3137811E+01-.3644722E+02.3430000E+03
.3779645E+00-.1494336E+030.0.0.-.5832000E+04-.6803361E+010.0.
.7653197E+00-.1180890E+05-.1800000E+02.2847540E+040.0.0.-.4841649E+05
0.0.0.5159000E+00
CASE NUMBER 637
.8607439E+010.0.0.0.2049390E+01.3253306E+01-.3688902E+02.3430000E+03
.3779645E+00-.1549339E+030.0.0.-.5832000E+04-.6803361E+010.0.
.7745967E+00-.1195204E+05-.1800000E+02.2952351E+040.0.0.-.5019858E+05
0.0.0.5240000E+00
CASE NUMBER 638
.8916670E+010.0.0.0.2073644E+01.3370184E+01-.3732559E+02.3430000E+03
.3779645E+00-.1605001E+030.0.0.-.5832000E+04-.6803361E+010.0.
.7837638E+00-.1209349E+05-.1800000E+02.3058418E+040.0.0.-.5200202E+05
0.0.0.5315000E+00
CASE NUMBER 639
.9229518E+010.0.0.0.2097618E+01.3488430E+01-.3775712E+02.3430000E+03
.3779645E+00-.1661313E+030.0.0.-.5832000E+04-.6803361E+010.0.
.7928250E+00-.1223331E+05-.1800000E+02.3165725E+040.0.0.-.5382655E+05
0.0.0.5385000E+00
CASE NUMBER 640
.3333333E+000.0.0.0.0.0.0.0.0.7290000E+03
0.0.0.0.-.5832000E+04-.5000000E+010.0.0.
0.0.-.1800000E+020.0.0.0.0.
0.0.0.3005000E+00

```

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER	1
641	1	
.353534E+000.	0.	.7071068E+00 .1178511E+00-.1272792E+02 .7290000E+03
.333333E+00-.6363961E+010.	0.	-.5832000E+04-.6000000E+010.
.2357023E+00-.4123847E+04-.1800000E+02 .2577404E+030.	0.	0. -.2061923E+04
0.	0.	.3310000E+00
642	1	
.1000000E+010.	0.	.1000000E+01 .333333E+00-.1800000E+02 .7290000E+03
.333333E+00-.1800000E+020.	0.	-.5832000E+04-.6000000E+010.
.333333E+00-.5832000E+04-.1800000E+02 .7290000E+030.	0.	0. -.5832000E+04
0.	0.	.3601000E+00
643	1	
.1837117E+010.	0.	.1224745E+01 .6123724E+00-.2204541E+02 .7290000E+03
.333333E+00-.3306811E+020.	0.	-.5832000E+04-.6000000E+010.
.4082483E+00-.7142712E+04-.1800000E+02 .1339259E+040.	0.	0. -.1071407E+05
0.	0.	.3867000E+00
644	1	
.2828427E+010.	0.	.1414214E+01 .9428090E+00-.2545584E+02 .7290000E+03
.333333E+00-.5091169E+020.	0.	-.5832000E+04-.6000000E+010.
.4714045E+00-.8247693E+04-.1800000E+02 .2061923E+040.	0.	0. -.1649539E+05
0.	0.	.4112000E+00
645	1	
.3952847E+010.	0.	.1581139E+01 .1317616E+01-.2846050E+02 .7290000E+03
.333333E+00-.7115125E+020.	0.	-.5832000E+04-.6000000E+010.
.5270463E+00-.9221202E+04-.1800000E+02 .2881626E+040.	0.	0. -.2305300E+05
0.	0.	.4354000E+00
646	1	
.5196152E+010.	0.	.1732051E+01 .1732051E+01-.3117691E+02 .7290000E+03
.333333E+00-.9353074E+020.	0.	-.5832000E+04-.6000000E+010.
.5773503E+00-.1010132E+05-.1800000E+02 .3787995E+040.	0.	0. -.3030396E+05
0.	0.	.4665000E+00
647	1	
.6547900E+010.	0.	.1870829E+01 .2182633E+01-.3267492E+02 .7290000E+03
.333333E+00-.1178622E+030.	0.	-.5832000E+04-.6000000E+010.
.6236096E+00-.1091067E+05-.1800000E+02 .4773419E+040.	0.	0. -.3818736E+05
0.	0.	.5086000E+00
648	1	
.6830520E+010.	0.	.1897367E+01 .2276840E+01-.3415260E+02 .7290000E+03
.333333E+00-.1229494E+030.	0.	-.5832000E+04-.6000000E+010.
.6324555E+00-.1106544E+05-.1800000E+02 .4979449E+040.	0.	0. -.3983559E+05
0.	0.	.5182000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER	1
649	1	
.7117092E+010.	0.	.1923538E+01 .2372364E+01-.3462369E+02 .7290000E+03
.333333E+00-.1281077E+030.	0.	-.5832000E+04-.6000000E+010.
.6411795E+00-.1121808E+05-.1800000E+02 .5188360E+040.	0.	0. -.4150688E+05
0.	0.	.5259000E+00
650	1	
.7407564E+010.	0.	.1949359E+01 .2469188E+01-.3508846E+02 .7290000E+03
.333333E+00-.1333361E+030.	0.	-.5832000E+04-.6000000E+010.
.6497863E+00-.1136866E+05-.1800000E+02 .5400114E+040.	0.	0. -.4320091E+05
0.	0.	.5328000E+00
651	1	
.7701883E+010.	0.	.1974842E+01 .2567294E+01-.3554715E+02 .7290000E+03
.333333E+00-.1386339E+030.	0.	-.5832000E+04-.6000000E+010.
.6582806E+00-.1151728E+05-.1800000E+02 .5614673E+040.	0.	0. -.4491738E+05
0.	0.	.5402000E+00
652	1	
.3162278E+000.	0.	0. 0. 0. 1.000000E+04
0.	0.	-.5832000E+04-.5692100E+010.
0.	0.	0. 0. 0.
0.	0.	.1800000E+020.
0.	0.	.3082000E+00
653	1	
.353534E+000.	0.	.7071068E+00 .1118034E+00-.1272792E+02 .1000000E+04
.3162278E+00-.6363961E+010.	0.	-.5832000E+04-.5692100E+010.
.2236068E+00-.4123847E+04-.1800000E+02 .353534E+030.	0.	0. -.2061923E+04
0.	0.	.3393000E+00
654	1	
.1000000E+010.	0.	.1000000E+01 .3162278E+00-.1800000E+02 .1000000E+04
.3162278E+00-.1800000E+020.	0.	-.5832000E+04-.5692100E+010.
.3162278E+00-.5832000E+04-.1800000E+02 .1000000E+040.	0.	0. -.5832000E+04
0.	0.	.3699000E+00
655	1	
.1837117E+010.	0.	.1224745E+01 .5809475E+00-.2204541E+02 .1000000E+04
.3162278E+00-.3306811E+020.	0.	-.5832000E+04-.5692100E+010.
.3872983E+00-.7142712E+04-.1800000E+02 .1837117E+040.	0.	0. -.1071407E+05
0.	0.	.3959000E+00
656	1	
.2828427E+010.	0.	.1414214E+01 .8944272E+00-.2545584E+02 .1000000E+04
.3162278E+00-.5091169E+020.	0.	-.5832000E+04-.5692100E+010.
.4472136E+00-.8247693E+04-.1800000E+02 .2828427E+040.	0.	0. -.1649539E+05
0.	0.	.4176000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER
657	1
.3952847E+010.	.1581139E+01 .1250000E+01-.2846050E+02 .1000000E+04
.3162278E+00-.7115125E+020.	.5832000E+04-.5692100E+010.
.5000000E+00-.9221202E+04-.1800000E+02 .3952847E+040.	.4460000E+00 .2305300E+05
0.	0.
658	1
.5196152E+010.	.1732051E+01 .1643168E+01-.3117691E+02 .1000000E+04
.3162278E+00-.9353074E+020.	.5832000E+04-.5692100E+010.
.5477225E+00-.1010132E+05-.1800000E+02 .5196152E+040.	.4797000E+00 .3030396E+05
0.	0.
659	1
.6547900E+010.	.1870829E+01 .2070628E+01-.3367492E+02 .1000000E+04
.3162278E+00-.1178622E+030.	.5832000E+04-.5692100E+010.
.5916080E+00-.1091067E+05-.1800000E+02 .6547900E+040.	.5273000E+00 .3818736E+05
0.	0.
660	1
.6830520E+010.	.1897367E+01 .2160000E+01-.3415260E+02 .1000000E+04
.3162278E+00-.1229494E+030.	.5832000E+04-.5692100E+010.
.6000000E+00-.1106544E+05-.1800000E+02 .6830520E+040.	.5343000E+00 .3983559E+05
0.	0.
661	1
.2886751E+000.	.7071068E+00 .1020621E+00-.1272792E+02 .1728000E+04
.2886751E+00-.1800000E+020.	.5832000E+04-.5196152E+010.
.2886751E+00-.1800000E+020.	.3172000E+00 .1728000E+04
0.	0.
662	1
.3535534E+000.	.7071068E+00 .1020621E+00-.1272792E+02 .1728000E+04
.2886751E+00-.6363961E+010.	.5832000E+04-.5196152E+010.
.2041241E+00-.4123847E+04-.1800000E+02 .6109403E+030.	.3511000E+00 .2061923E+04
0.	0.
663	1
.1000000E+010.	.1000000E+01 .2886751E+00-.1800000E+02 .1728000E+04
.2886751E+00-.1800000E+020.	.5832000E+04-.5196152E+010.
.2886751E+00-.5832000E+04-.1800000E+02 .1728000E+040.	.3832000E+00 .5832000E+04
0.	0.
664	1
.1837117E+010.	.1224745E+01 .5303301E+00-.2204541E+02 .1728000E+04
.2886751E+00-.3306811E+020.	.5832000E+04-.5196152E+010.
.3535534E+00-.7142712E+04-.1800000E+02 .3174539E+040.	.4074000E+00 .1071407E+05
0.	0.

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER
665	1
.228427E+010.	.1414214E+01 .8164966E+00-.2545584E+02 .1728000E+04
.2886751E+00-.5091169E+020.	.5832000E+04-.5196152E+010.
.4082483E+00-.8247693E+04-.1800000E+02 .4887522E+040.	.4343000E+00 .1649539E+05
0.	0.
666	1
.3952847E+010.	.1581139E+01 .1141089E+01-.2846050E+02 .1728000E+04
.2886751E+00-.7115125E+020.	.5832000E+04-.5196152E+010.
.4564355E+00-.9221202E+04-.1800000E+02 .6830520E+040.	.4667000E+00 .2305300E+05
0.	0.
667	1
.5196152E+010.	.1732051E+01 .1500000E+01-.3117691E+02 .1728000E+04
.2886751E+00-.9353074E+020.	.5832000E+04-.5196152E+010.
.5000000E+00-.1010132E+05-.1800000E+02 .8978951E+040.	.5107000E+00 .3030396E+05
0.	0.
668	1
.5458113E+010.	.1760682E+01 .1575622E+01-.3169227E+02 .1728000E+04
.2886751E+00-.9824604E+020.	.5832000E+04-.5196152E+010.
.5082650E+00-.1026830E+05-.1800000E+02 .8431620E+040.	.5196000E+00 .3183172E+05
0.	0.
669	1
.5724334E+010.	.1788854E+01 .1652473E+01-.3219938E+02 .1728000E+04
.2886751E+00-.1030380E+030.	.5832000E+04-.5196152E+010.
.5163978E+00-.1043260E+05-.1800000E+02 .9891649E+040.	.5286000E+00 .3338432E+05
0.	0.
670	1
.2626129E+000.	.5832000E+04 .4727032E+010.
.2626129E+00-.1800000E+020.	.3270000E+00 .3048625E+04
0.	0.
671	1
.3535534E+000.	.7071068E+00 .9284767E+01-.1272792E+02 .3048625E+04
.2626129E+00-.6363961E+010.	.5832000E+04-.4727032E+010.
.1856953E+00-.4123847E+04-.1800000E+02 .1077852E+040.	.3621000E+00 .2061923E+04
0.	0.
672	1
.1000000E+010.	.1000000E+01 .2626129E+00-.1800000E+02 .3048625E+04
.2626129E+00-.1800000E+020.	.5832000E+04-.4727032E+010.
.2626129E+00-.5832000E+04-.1800000E+02 .3048625E+040.	.3975000E+00 .5832000E+04
0.	0.

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 673                                GROUP NUMBER 1
.1837117E+01 .0. .0. .1224745E+01 .4824506E+00 .2204541E+02 .3048625E+04
.2626129E+00 .3306811E+02 .0. .0. .5832000E+04 .4727032E+010 .0.
.3216338E+00 .7142712E+04 .1800000E+02 .5600682E+040 .0. .0. .1071407E+05
0. .0. .0. .4247000E+00

CASE NUMBER 674                                GROUP NUMBER 1
.2828427E+01 .0. .0. .1414214E+01 .7427814E+00 .2545584E+02 .3048625E+04
.2626129E+00 .5091169E+02 .0. .0. .5832000E+04 .4727032E+010 .0.
.3713907E+00 .8247693E+04 .1800000E+02 .8622814E+040 .0. .0. .1649539E+05
0. .0. .0. .4562000E+00

CASE NUMBER 675                                GROUP NUMBER 1
.3952847E+01 .0. .0. .1581139E+01 .1038068E+01 .2846050E+02 .3048625E+04
.2626129E+00 .7115125E+02 .0. .0. .5832000E+04 .4727032E+010 .0.
.4152274E+00 .9221202E+04 .1800000E+02 .1205075E+050 .0. .0. .2305300E+05
0. .0. .0. .4940000E+00

CASE NUMBER 676                                GROUP NUMBER 1
.4192374E+01 .0. .0. .1612452E+01 .1100971E+01 .2902413E+02 .3048625E+04
.2626129E+00 .7546273E+02 .0. .0. .5832000E+04 .4727032E+010 .0.
.4234505E+00 .9403817E+04 .1800000E+02 .1278098E+050 .0. .0. .2444993E+05
0. .0. .0. .5029000E+00

CASE NUMBER 677                                GROUP NUMBER 1
0. .0. .1000000E+030 .0. .0. .0. .3430000E+03
.3779645E+000 .1000000E+050 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
0. .0. .1800000E+020 .0. .0. .3430000E+050 .0.
0. .0. .5832000E+06 .2648000E+00

CASE NUMBER 678                                GROUP NUMBER 1
.3535534E+00 .3535534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .1336306E+00 .1272792E+02 .3430000E+03
.3779645E+00 .6363961E+01 .1000000E+05 .3535534E+04 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.2626129E+00 .4123847E+04 .1800000E+02 .1212688E+03 .6363961E+03 .3430000E+05 .6363961E+05 .2061923E+04
.1272792E+04 .1272792E+06 .5832000E+06 .2898000E+00

CASE NUMBER 679                                GROUP NUMBER 1
.1000000E+01 .1000000E+03 .1000000E+03 .1000000E+03 .1000000E+01 .3779645E+00 .1800000E+02 .3430000E+03
.3779645E+00 .1800000E+02 .1000000E+05 .1000000E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.3779645E+00 .5832000E+04 .1800000E+02 .3430000E+03 .1800000E+04 .3430000E+05 .1800000E+06 .5832000E+04
.1800000E+04 .1800000E+06 .5832000E+06 .3133000E+00

CASE NUMBER 680                                GROUP NUMBER 1
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .6943651E+00 .2204541E+02 .3430000E+03
.3779645E+00 .3306811E+02 .1000000E+05 .1837117E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.4629100E+00 .7142712E+04 .1800000E+02 .6301312E+03 .3306811E+04 .3430000E+05 .3306811E+06 .1071407E+05
.2204541E+04 .2204541E+06 .5832000E+06 .3333000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 681                                GROUP NUMBER 1
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .1069045E+01 .2545584E+02 .3430000E+03
.3779645E+00 .5091169E+02 .1000000E+05 .2828427E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.5345225E+00 .8247693E+04 .1800000E+02 .9701505E+03 .5091169E+04 .3430000E+05 .5091169E+06 .1649539E+05
.2545584E+04 .2545584E+06 .5832000E+06 .3508000E+00

CASE NUMBER 682                                GROUP NUMBER 1
.3952847E+01 .3952847E+03 .1000000E+03 .1581139E+03 .1581139E+01 .1494036E+01 .2846050E+02 .3430000E+03
.3779645E+00 .7115125E+02 .1000000E+05 .3952847E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.5976143E+00 .9221202E+04 .1800000E+02 .1355827E+04 .7115125E+04 .3430000E+05 .7115125E+06 .2305300E+05
.2846050E+04 .2846050E+06 .5832000E+06 .3722000E+00

CASE NUMBER 683                                GROUP NUMBER 1
.5196152E+01 .5196152E+03 .1000000E+03 .1732051E+03 .1732051E+01 .1963961E+01 .3117691E+02 .3430000E+03
.3779645E+00 .9353074E+02 .1000000E+05 .5196152E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.6546537E+00 .1010132E+05 .1800000E+02 .1782280E+04 .9353074E+04 .3430000E+05 .9353074E+06 .3030396E+05
.3117691E+04 .3117691E+06 .5832000E+06 .3964000E+00

CASE NUMBER 684                                GROUP NUMBER 1
.6547900E+01 .6547900E+03 .1000000E+03 .1870829E+03 .1870829E+01 .2474874E+01 .3367492E+02 .3430000E+03
.3779645E+00 .1178622E+03 .1000000E+05 .6547900E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.7071068E+00 .1091067E+05 .1800000E+02 .2245930E+04 .1178622E+05 .3430000E+05 .1178622E+07 .3818736E+05
.3367492E+04 .3367492E+06 .5832000E+06 .4242000E+00

CASE NUMBER 685                                GROUP NUMBER 1
.8000000E+01 .8000000E+03 .1000000E+03 .2000000E+03 .2000000E+01 .3023716E+01 .3600000E+02 .3430000E+03
.3779645E+00 .1440000E+03 .1000000E+05 .8000000E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.7559289E+00 .1166400E+05 .1800000E+02 .2744000E+04 .1440000E+05 .3430000E+05 .1440000E+07 .4665600E+05
.3600000E+04 .3600000E+06 .5832000E+06 .4510000E+00

CASE NUMBER 686                                GROUP NUMBER 1
.8301867E+01 .8301867E+03 .1000000E+03 .2024846E+03 .2024846E+01 .3137811E+01 .3644722E+02 .3430000E+03
.3779645E+00 .1494336E+03 .1000000E+05 .8301867E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.7653197E+00 .1180890E+05 .1800000E+02 .2847540E+04 .1494336E+05 .3430000E+05 .1494336E+07 .4841649E+05
.3644722E+04 .3644722E+06 .5832000E+06 .4574000E+00

CASE NUMBER 687                                GROUP NUMBER 1
0. .0. .1000000E+030 .0. .0. .0. .7290000E+03
.3333333E+000 .1000000E+050 .5832000E+04 .6000000E+01 .7290000E+07 .3333333E+02
0. .0. .1800000E+020 .0. .0. .7290000E+050 .0.
0. .0. .5832000E+06 .2750000E+00

CASE NUMBER 688                                GROUP NUMBER 1
.3535534E+00 .3535534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .1178511E+00 .1272792E+02 .7290000E+03
.3333333E+00 .6363961E+01 .1000000E+05 .3535534E+04 .5832000E+04 .6000000E+01 .7290000E+07 .3333333E+02
.2357023E+00 .4123847E+04 .1800000E+02 .2577404E+03 .6363961E+03 .7290000E+05 .6363961E+05 .2061923E+04
.1272792E+04 .1272792E+06 .5832000E+06 .3019000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER 689 GROUP NUMBER 1  
1.000000E+01 .1000000E+03 .1000000E+03 .1000000E+03 .1000000E+01 .333333E+00 .1800000E+02 .7290000E+03  
.333333E+00 .1800000E+02 .1000000E+05 .1000000E+05 .5832000E+04 .6000000E+01 .7290000E+07 .333333E+02  
.333333E+00 .5832000E+04 .1800000E+02 .7290000E+03 .1800000E+04 .7290000E+05 .1800000E+06 .5832000E+04  
.1800000E+04 .1800000E+06 .5832000E+06 .3259000E+00  
CASE NUMBER 690 GROUP NUMBER 1  
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .6123724E+00 .2204541E+02 .7290000E+03  
.333333E+00 .3306811E+02 .1000000E+05 .1837117E+05 .5832000E+04 .6000000E+01 .7290000E+07 .333333E+02  
.4082483E+00 .7142712E+04 .1800000E+02 .1339259E+04 .3306811E+04 .7290000E+05 .3306811E+06 .1071407E+05  
.2204541E+04 .2204541E+06 .5832000E+06 .3449000E+00  
CASE NUMBER 691 GROUP NUMBER 1  
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .9428090E+00 .2545584E+02 .7290000E+03  
.333333E+00 .5091169E+02 .1000000E+05 .2828427E+05 .5832000E+04 .6000000E+01 .7290000E+07 .333333E+02  
.4714045E+00 .8247693E+04 .1800000E+02 .2061923E+04 .5091169E+04 .7290000E+05 .5091169E+06 .1649539E+05  
.2545584E+04 .2545584E+06 .5832000E+06 .3667000E+00  
CASE NUMBER 692 GROUP NUMBER 1  
.3952847E+01 .3952847E+03 .1000000E+03 .1581139E+03 .1581139E+01 .1317616E+01 .2846050E+02 .7290000E+03  
.333333E+00 .7115125E+02 .1000000E+05 .3952847E+05 .5832000E+04 .6000000E+01 .7290000E+07 .333333E+02  
.5270463E+00 .9221202E+04 .1800000E+02 .2881626E+04 .7115125E+04 .7290000E+05 .7115125E+06 .2305300E+05  
.2846050E+04 .2846050E+06 .5832000E+06 .3915000E+00  
CASE NUMBER 693 GROUP NUMBER 1  
.5196152E+01 .5196152E+03 .1000000E+03 .1732051E+03 .1732051E+01 .1732051E+01 .3117691E+02 .7290000E+03  
.333333E+00 .9353074E+02 .1000000E+05 .5196152E+05 .5832000E+04 .6000000E+01 .7290000E+07 .333333E+02  
.5773033E+00 .1010132E+05 .1800000E+02 .3787995E+04 .9353074E+04 .7290000E+05 .9353074E+06 .3030396E+05  
.3117691E+04 .3117691E+06 .5832000E+06 .4201000E+00  
CASE NUMBER 694 GROUP NUMBER 1  
.6547900E+01 .6547900E+03 .1000000E+03 .1870829E+03 .1870829E+01 .2182633E+01 .3367492E+02 .7290000E+03  
.333333E+00 .1178622E+02 .1000000E+05 .6547900E+05 .5832000E+04 .6000000E+01 .7290000E+07 .333333E+02  
.6236096E+00 .1091067E+05 .1800000E+02 .4772419E+04 .1178622E+05 .7290000E+05 .1178622E+07 .3818736E+05  
.3367492E+04 .3367492E+06 .5832000E+06 .4525000E+00  
CASE NUMBER 695 GROUP NUMBER 1  
.6830520E+01 .6830520E+03 .1000000E+03 .1897367E+03 .1897367E+01 .2276840E+01 .3415260E+02 .7290000E+03  
.333333E+00 .1229494E+02 .1000000E+05 .6830520E+05 .5832000E+04 .6000000E+01 .7290000E+07 .333333E+02  
.6324555E+00 .1106544E+05 .1800000E+02 .4979449E+04 .1229494E+05 .7290000E+05 .1229494E+07 .3983559E+05  
.3415260E+04 .3415260E+06 .5832000E+06 .4589000E+00  
CASE NUMBER 696 GROUP NUMBER 1  
0. 0. 1000000E+030. 0. 0. 0. 1000000E+04  
0. 0. 1000000E+050. 0. 0. 0. 1000000E+08  
0. 0. 1800000E+020. 0. 0. 0. 1000000E+060.  
0. 0. 5832000E+06 .2783000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER 697 GROUP NUMBER 1  
.353534E+00 .353534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .1118034E+00 .1272792E+02 .1000000E+04  
.3162278E+00 .6363961E+01 .1000000E+05 .353534E+04 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02  
.2236068E+00 .4123847E+04 .1800000E+02 .353534E+03 .6363961E+03 .1000000E+06 .6363961E+05 .2061923E+04  
.1272792E+04 .1272792E+06 .5832000E+06 .3054000E+00  
CASE NUMBER 698 GROUP NUMBER 1  
.1000000E+01 .1000000E+03 .1000000E+03 .1000000E+03 .1000000E+01 .3162278E+00 .1800000E+02 .1000000E+04  
.3162278E+00 .1800000E+02 .1000000E+05 .1000000E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02  
.3162278E+00 .5832000E+04 .1800000E+02 .1000000E+04 .1800000E+04 .1000000E+06 .1800000E+06 .5832000E+04  
.1800000E+04 .1800000E+06 .5832000E+06 .3312000E+00  
CASE NUMBER 699 GROUP NUMBER 1  
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .5809475E+00 .2204541E+02 .1000000E+04  
.3162278E+00 .3306811E+02 .1000000E+05 .1837117E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02  
.3872983E+00 .7142712E+04 .1800000E+02 .1837117E+04 .3306811E+04 .1000000E+06 .3306811E+06 .1071407E+05  
.2204541E+04 .2204541E+06 .5832000E+06 .3517000E+00  
CASE NUMBER 700 GROUP NUMBER 1  
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .8944272E+00 .2545584E+02 .1000000E+04  
.3162278E+00 .5091169E+02 .1000000E+05 .2828427E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02  
.4472185E+00 .8247693E+04 .1800000E+02 .2828427E+04 .5091169E+04 .1000000E+06 .5091169E+06 .1649539E+05  
.2545584E+04 .2545584E+06 .5832000E+06 .3749000E+00  
CASE NUMBER 701 GROUP NUMBER 1  
.3952847E+01 .3952847E+03 .1000000E+03 .1581139E+03 .1581139E+01 .1250000E+01 .2846050E+02 .1000000E+04  
.3162278E+00 .7115125E+02 .1000000E+05 .3952847E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02  
.5000000E+00 .9221202E+04 .1800000E+02 .3952847E+04 .7115125E+04 .1000000E+06 .7115125E+06 .2305300E+05  
.2846050E+04 .2846050E+06 .5832000E+06 .4014000E+00  
CASE NUMBER 702 GROUP NUMBER 1  
.5196152E+01 .5196152E+03 .1000000E+03 .1732051E+03 .1732051E+01 .1643168E+01 .3117691E+02 .1000000E+04  
.3162278E+00 .9353074E+02 .1000000E+05 .5196152E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02  
.5477226E+00 .1010132E+05 .1800000E+02 .5196152E+04 .9353074E+04 .1000000E+06 .9353074E+06 .3030396E+05  
.3117691E+04 .3117691E+06 .5832000E+06 .4317000E+00  
CASE NUMBER 703 GROUP NUMBER 1  
.5458113E+01 .5458113E+03 .1000000E+03 .1760682E+03 .1760682E+01 .1726007E+01 .3169227E+02 .1000000E+04  
.3162278E+00 .9824604E+02 .1000000E+05 .5458113E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02  
.5567764E+00 .1026830E+05 .1800000E+02 .5458113E+04 .9824604E+04 .1000000E+06 .9824604E+06 .3183172E+05  
.3169227E+04 .3169227E+06 .5832000E+06 .4380000E+00  
CASE NUMBER 704 GROUP NUMBER 1  
.5724334E+01 .5724334E+03 .1000000E+03 .1788854E+03 .1788854E+01 .1810133E+01 .3219938E+02 .1000000E+04  
.3162278E+00 .1030380E+02 .1000000E+05 .5724334E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02  
.565854E+00 .1043260E+05 .1800000E+02 .5724334E+04 .1030380E+05 .1000000E+06 .1030380E+07 .3338432E+05  
.3219938E+04 .3219938E+06 .5832000E+06 .4446000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 705
.5994748E+01 .5994748E+03 .1000000E+03 .1816590E+03 .1816590E+01 .1895706E+01 .3269862E+02 .1000000E+04
.3162278E+00 .1079055E+03 .1000000E+05 .5994748E+05 .5832000E+04 .5196152E+01 .1000000E+08 .3162278E+02
.5744563E+00 .1059435E+05 .1800000E+02 .5994748E+04 .1079055E+05 .1000000E+06 .1079055E+07 .3496137E+05
.3269862E+04 .3269862E+06 .5832000E+06 .4517000E+00

CASE NUMBER 706
0. 0. .1000000E+030. 0. 0. 0. 0. 0. 1728000E+04
.2886751E+000. .1000000E+050. .5832000E+04. .5196152E+01 .1728000E+08 .2886751E+02
0. 0. .1800000E+020. 0. 0. 0. 0. 0.
0. 0. .5832000E+06 .2865000E+00

CASE NUMBER 707
.3535534E+00 .3535534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .1020621E+00 .1272792E+02 .1728000E+04
.2886751E+00 .6363961E+01 .1000000E+05 .3535534E+04 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.2041241E+00 .4123847E+04 .1800000E+02 .6109403E+03 .6363961E+03 .1728000E+06 .6363961E+05 .2061923E+04
.1272792E+04 .1272792E+06 .5832000E+06 .3150000E+00

CASE NUMBER 708
.1000000E+01 .1000000E+03 .1000000E+03 .1000000E+03 .1000000E+01 .2886751E+00 .1800000E+02 .1728000E+04
.2886751E+00 .1800000E+02 .1000000E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.2886751E+00 .5832000E+04 .1800000E+02 .1728000E+04 .1800000E+04 .1728000E+06 .1800000E+06 .5832000E+04
.1800000E+04 .1800000E+06 .5832000E+06 .3425000E+00

CASE NUMBER 709
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .5303301E+00 .2204541E+02 .1728000E+04
.2886751E+00 .3306811E+02 .1000000E+05 .1837117E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.3535534E+00 .7142712E+04 .1800000E+02 .3174539E+04 .3306811E+04 .1728000E+06 .3306811E+06 .1071407E+05
.2204541E+04 .2204541E+06 .5832000E+06 .3654000E+00

CASE NUMBER 710
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .8164966E+00 .2545584E+02 .1728000E+04
.2886751E+00 .5091169E+02 .1000000E+05 .2828427E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.4082483E+00 .8247693E+04 .1800000E+02 .4887522E+04 .5091169E+04 .1728000E+06 .5091169E+06 .1649539E+05
.2545584E+04 .2545584E+06 .5832000E+06 .3914000E+00

CASE NUMBER 711
.3952847E+01 .3952847E+03 .1000000E+03 .1581139E+03 .1581139E+01 .1141089E+01 .2846050E+02 .1728000E+04
.2886751E+00 .7115125E+02 .1000000E+05 .3952847E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.4564355E+00 .9221202E+04 .1800000E+02 .6830520E+04 .7115125E+04 .1728000E+06 .7115125E+06 .2305300E+05
.2846050E+04 .2846050E+06 .5832000E+06 .4209000E+00

CASE NUMBER 712
.4192374E+01 .4192374E+03 .1000000E+03 .1612452E+03 .1612452E+01 .1210234E+01 .2902413E+02 .1728000E+04
.2886751E+00 .7546273E+02 .1000000E+05 .4192374E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.4654747E+00 .9403817E+04 .1800000E+02 .7244422E+04 .7546273E+04 .1728000E+06 .7546273E+06 .2444993E+05
.2902413E+04 .2902413E+06 .5832000E+06 .4274000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 713
.4436553E+01 .4436553E+03 .1000000E+03 .1643168E+03 .1643168E+01 .1280722E+01 .2957702E+02 .1728000E+04
.2886751E+00 .7985795E+02 .1000000E+05 .4436553E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.4743416E+00 .9582954E+04 .1800000E+02 .7668363E+04 .7985795E+04 .1728000E+06 .7985795E+06 .2587398E+05
.2957702E+04 .2957702E+06 .5832000E+06 .4339000E+00

CASE NUMBER 714
.4685296E+01 .4685296E+03 .1000000E+03 .1673320E+03 .1673320E+01 .1352528E+01 .3011976E+02 .1728000E+04
.2886751E+00 .8433533E+02 .1000000E+05 .4685296E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.4830459E+00 .9758803E+04 .1800000E+02 .8096192E+04 .8433533E+04 .1728000E+06 .8433533E+06 .2732465E+05
.3011976E+04 .3011976E+06 .5832000E+06 .4405000E+00

CASE NUMBER 715
0. 0. .1000000E+030. 0. 0. 0. 0. 0. 3048625E+04
.2626129E+000. .1000000E+050. .5832000E+04. .4727032E+01 .3048625E+08 .2626129E+02
0. 0. .1800000E+020. 0. 0. 0. 0. 0.
0. 0. .5832000E+06 .2987000E+00

CASE NUMBER 716
.3535534E+00 .3535534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .9284767E+01 .1272792E+02 .3048625E+04
.2626129E+00 .6363961E+01 .1000000E+05 .3535534E+04 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
.1856953E+00 .4123847E+04 .1800000E+02 .1077852E+04 .6363961E+03 .3048625E+06 .6363961E+05 .2061923E+04
.1272792E+04 .1272792E+06 .5832000E+06 .3299000E+00

CASE NUMBER 717
.1000000E+01 .1000000E+03 .1000000E+03 .1000000E+03 .1000000E+01 .2626129E+00 .1800000E+02 .3048625E+04
.2626129E+00 .1800000E+02 .1000000E+05 .1000000E+05 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
.2626129E+00 .5832000E+04 .1800000E+02 .3048625E+04 .1800000E+04 .3048625E+06 .1800000E+06 .5832000E+04
.1800000E+04 .1800000E+06 .5832000E+06 .3571000E+00

CASE NUMBER 718
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .4824506E+00 .2204541E+02 .3048625E+04
.2626129E+00 .3306811E+02 .1000000E+05 .1837117E+05 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
.3216338E+00 .7142712E+04 .1800000E+02 .5600682E+04 .3306811E+04 .3048625E+06 .3306811E+06 .1071407E+05
.2204541E+04 .2204541E+06 .5832000E+06 .3831000E+00

CASE NUMBER 719
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .7427814E+00 .2545584E+02 .3048625E+04
.2626129E+00 .5091169E+02 .1000000E+05 .2828427E+05 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
.3713907E+00 .8247693E+04 .1800000E+02 .8622814E+04 .5091169E+04 .3048625E+06 .5091169E+06 .1649539E+05
.2545584E+04 .2545584E+06 .5832000E+06 .4118000E+00

CASE NUMBER 720
.3043189E+01 .3043189E+03 .1000000E+03 .1449138E+03 .1449138E+01 .7991806E+00 .2608448E+02 .3048625E+04
.2626129E+00 .5477740E+02 .1000000E+05 .3043189E+05 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
.3805622E+00 .8451371E+04 .1800000E+02 .9277542E+04 .5477740E+04 .3048625E+06 .5477740E+06 .1774788E+05
.2608448E+04 .2608448E+06 .5832000E+06 .4178000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER 721 GROUP NUMBER 1  
.3263127E+01 .3263127E+03 .1000000E+03 .1483240E+03 .1483240E+01 .8569392E+00 .2669831E+02 .3048625E+04  
.2626129E+00 .5873629E+02 .1000000E+05 .3263127E+05 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02  
.3895178E+00 .8650254E+04 .1800000E+02 .9848052E+04 .5873629E+04 .3048625E+06 .5873629E+06 .1903056E+05  
- .2669831E+04 .2669831E+06 .5832000E+06 .4240000E+00  
CASE NUMBER 722 GROUP NUMBER 1  
.3488123E+01 .3488123E+03 .1000000E+03 .1516575E+03 .1516575E+01 .9160259E+00 .2729835E+02 .3048625E+04  
.2626129E+00 .6278621E+02 .1000000E+05 .3488123E+05 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02  
.3982721E+00 .8844666E+04 .1800000E+02 .1063398E+05 .6278621E+04 .3048625E+06 .6278621E+06 .2034273E+05  
- .2729835E+04 .2729835E+06 .5832000E+06 .4307000E+00  
CASE NUMBER 723 GROUP NUMBER 1  
0. 0. 2000000E+030. 0. 0. 0. 0. 0. 3430000E+03  
.3779645E+000. 4000000E+050. - .5832000E+04. 6803361E+01 .1372000E+08 .7559289E+02  
0. 0. - .1800000E+020. 0. 0. 0. 0. 0. 6860000E+050.  
0. 0. - .1166400E+07 .2515000E+00  
CASE NUMBER 724 GROUP NUMBER 1  
.353534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .1336306E+00 .1272792E+02 .3430000E+03  
.3779645E+00 .6363961E+01 .4000000E+05 .1414214E+05 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02  
.2672612E+00 .4123847E+04 .1800000E+02 .1212688E+03 .1272792E+04 .6860000E+05 .2545584E+06 .2061923E+04  
- .2545584E+04 .5091169E+06 .1166400E+07 .2724000E+00  
CASE NUMBER 725 GROUP NUMBER 1  
.1000000E+01 .2000000E+03 .2000000E+03 .2000000E+03 .1000000E+01 .3779645E+00 .1800000E+02 .3430000E+03  
.3779645E+00 .1800000E+02 .4000000E+05 .4000000E+05 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02  
.3779645E+00 .5832000E+04 .1800000E+02 .3430000E+03 .3600000E+05 .6860000E+05 .7200000E+06 .5832000E+04  
- .3600000E+04 .7200000E+06 .1166400E+07 .2867000E+00  
CASE NUMBER 726 GROUP NUMBER 1  
.1837117E+01 .3674235E+03 .2000000E+03 .2449490E+03 .1224745E+01 .6943651E+00 .2204541E+02 .3430000E+03  
.3779645E+00 .3306811E+02 .4000000E+05 .7348469E+05 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02  
.4629100E+00 .7142712E+04 .1800000E+02 .6301312E+03 .6613622E+04 .6860000E+05 .1322724E+07 .1071407E+05  
- .4409082E+04 .8818163E+06 .1166400E+07 .3021000E+00  
CASE NUMBER 727 GROUP NUMBER 1  
.2828427E+01 .5656854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .1069045E+01 .2545584E+02 .3430000E+03  
.3779645E+00 .5091169E+02 .4000000E+05 .1131371E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02  
.5345225E+00 .8247693E+04 .1800000E+02 .9701505E+03 .1018234E+05 .6860000E+05 .2036468E+07 .1649539E+05  
- .5091169E+04 .1018234E+07 .1166400E+07 .3212000E+00  
CASE NUMBER 728 GROUP NUMBER 1  
.3952847E+01 .7905694E+03 .2000000E+03 .3162278E+03 .1581139E+01 .1494036E+01 .2846050E+02 .3430000E+03  
.3779645E+00 .7115125E+02 .4000000E+05 .1581139E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02  
.5976143E+00 .9221202E+04 .1800000E+02 .1355827E+04 .1423025E+05 .6860000E+05 .2846050E+07 .2305300E+05  
- .5692100E+04 .1138420E+07 .1166400E+07 .3417000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER 729 GROUP NUMBER 1  
.5196152E+01 .1039230E+04 .2000000E+03 .3464102E+03 .1732051E+01 .1563961E+01 .3117691E+02 .3430000E+03  
.3779645E+00 .9352074E+02 .4000000E+05 .2078451E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02  
.6546537E+00 .1010132E+05 .1800000E+02 .1782280E+04 .1870615E+05 .6860000E+05 .3741230E+07 .3030396E+05  
- .6235383E+04 .1247077E+07 .1166400E+07 .3645000E+00  
CASE NUMBER 730 GROUP NUMBER 1  
.6547900E+01 .1309580E+04 .2000000E+03 .3741657E+03 .1870829E+01 .2474874E+01 .3367492E+02 .3430000E+03  
.3779645E+00 .1178622E+03 .4000000E+05 .2619160E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02  
.7071068E+00 .1091067E+05 .1800000E+02 .2245930E+04 .2357244E+05 .6860000E+05 .4714488E+07 .3818736E+05  
- .6734983E+04 .1346997E+07 .1166400E+07 .3915000E+00  
CASE NUMBER 731 GROUP NUMBER 1  
.6830520E+01 .1366104E+04 .2000000E+03 .3794733E+03 .1897367E+01 .2581694E+01 .3415260E+02 .3430000E+03  
.3779645E+00 .1229494E+03 .4000000E+05 .2732208E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02  
.7171372E+00 .1106544E+05 .1800000E+02 .2342868E+04 .2458987E+05 .6860000E+05 .4917974E+07 .3983559E+05  
- .6830520E+04 .1366104E+07 .1166400E+07 .3965000E+00  
CASE NUMBER 732 GROUP NUMBER 1  
.7117092E+01 .1423418E+04 .2000000E+03 .3847077E+03 .1923538E+01 .2690008E+01 .3462369E+02 .3430000E+03  
.3779645E+00 .1281077E+03 .4000000E+05 .2846837E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02  
.7270292E+00 .1121808E+05 .1800000E+02 .2441163E+04 .2562153E+05 .6860000E+05 .5124306E+07 .4150688E+05  
- .6924738E+04 .1384948E+07 .1166400E+07 .4015000E+00  
CASE NUMBER 733 GROUP NUMBER 1  
.7407564E+01 .1481513E+04 .2000000E+03 .3898718E+03 .1949359E+01 .2799796E+01 .3508846E+02 .3430000E+03  
.3779645E+00 .1333361E+03 .4000000E+05 .2963025E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02  
.7367884E+00 .1136868E+05 .1800000E+02 .2540794E+04 .2666723E+05 .6860000E+05 .5333446E+07 .4320091E+05  
- .7017692E+04 .1403538E+07 .1166400E+07 .4069000E+00  
CASE NUMBER 734 GROUP NUMBER 1  
.7701883E+01 .1540377E+04 .2000000E+03 .3949684E+03 .1974842E+01 .2911038E+01 .3554715E+02 .3430000E+03  
.3779645E+00 .1386339E+03 .4000000E+05 .3080753E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02  
.7464200E+00 .1151728E+05 .1800000E+02 .2641746E+04 .2772678E+05 .6860000E+05 .5545356E+07 .4491738E+05  
- .7109430E+04 .1421886E+07 .1166400E+07 .4125000E+00  
CASE NUMBER 735 GROUP NUMBER 1  
.8000000E+01 .1600000E+04 .2000000E+03 .4000000E+03 .2000000E+01 .3023716E+01 .3600000E+02 .3430000E+03  
.3779645E+00 .1440000E+03 .4000000E+05 .3200000E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02  
.7559289E+00 .1166400E+05 .1800000E+02 .2744000E+04 .2880000E+05 .6860000E+05 .5760000E+07 .4665600E+05  
- .7200000E+04 .1440000E+07 .1166400E+07 .4184000E+00  
CASE NUMBER 736 GROUP NUMBER 1  
0. 0. 2000000E+030. 0. 0. 0. 0. 0. 7290000E+03  
.3333333E+000. 4000000E+050. - .5832000E+04. 6000000E+01 .2916000E+08 .6666667E+02  
0. 0. - .1800000E+020. 0. 0. 0. 0. 0. 1458000E+060.  
0. 0. - .1166400E+07 .2572000E+00

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 737 GROUP NUMBER 1
.3535534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .1178511E+00-.1272792E+02 .7290000E+03
.3333333E+00-.6363961E+01 .4000000E+05 .1414214E+05-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.2357023E+00-.4123847E+04-.1800000E+02 .2577404E+03-.1272792E+04 .1458000E+06-.2545584E+06-.2061923E+04
-.2545584E+04-.5091169E+06-.1166400E+07 .2799000E+00
CASE NUMBER 738 GROUP NUMBER 1
.1000000E+01 .2000000E+03 .2000000E+03 .2000000E+03 .1000000E+01 .3333333E+00-.1800000E+02 .7290000E+03
.3333333E+00-.1800000E+02 .4000000E+05 .4000000E+05-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.3333333E+00-.5832000E+04-.1800000E+02 .7290000E+03-.3600000E+04-.1458000E+06-.7200000E+06-.5832000E+04
-.3600000E+04-.7200000E+06-.1166400E+07 .2977000E+00
CASE NUMBER 739 GROUP NUMBER 1
.1837117E+01 .3674235E+03 .2000000E+03 .2449490E+03 .1224745E+01 .6123724E+00-.2204541E+02 .7290000E+03
.3333333E+00-.3306811E+02 .4000000E+05 .7348469E+05-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.4082483E+00-.7142712E+04-.1800000E+02 .1339259E+04-.6613622E+04 .1458000E+06-.1322724E+07-.1071407E+05
-.4409082E+04-.8818163E+06-.1166400E+07 .3163000E+00
CASE NUMBER 740 GROUP NUMBER 1
.2828427E+01 .5656854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .9428090E+00-.2545584E+02 .7290000E+03
.3333333E+00-.5091169E+02 .4000000E+05 .1131371E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.4714045E+00-.8247693E+04-.1800000E+02 .2061923E+04-.1018234E+05 .1458000E+06-.2036468E+07-.1649539E+05
-.5091169E+04-.1018234E+07-.1166400E+07 .3372000E+00
CASE NUMBER 741 GROUP NUMBER 1
.3952847E+01 .7905694E+03 .2000000E+03 .3162278E+03 .1581139E+01 .1317616E+01-.2846050E+02 .7290000E+03
.3333333E+00-.7115125E+02 .4000000E+05 .1581139E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.5270463E+00-.9221202E+04-.1800000E+02 .2881626E+04-.1423025E+05 .1458000E+06-.2846050E+07-.2305300E+05
-.5692100E+04-.1138420E+07-.1166400E+07 .3606000E+00
CASE NUMBER 742 GROUP NUMBER 1
.5196152E+01 .1039230E+04 .2000000E+03 .3464102E+03 .1732051E+01 .1732051E+01-.3117691E+02 .7290000E+03
.3333333E+00-.9353074E+02 .4000000E+05 .2078461E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.5773503E+00-.1010132E+05-.1800000E+02 .3787995E+04-.1870615E+05 .1458000E+06-.3741230E+07-.3030396E+05
-.6235383E+04-.1247077E+07-.1166400E+07 .3880000E+00
CASE NUMBER 743 GROUP NUMBER 1
.5458113E+01 .1091623E+04 .2000000E+03 .3521363E+03 .1760682E+01 .1819371E+01-.3169227E+02 .7290000E+03
.3333333E+00-.9824604E+02 .4000000E+05 .2183245E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.5868939E+00-.1026830E+05-.1800000E+02 .3787995E+04-.1964921E+05 .1458000E+06-.3929842E+07-.3183172E+05
-.6338454E+04-.1267691E+07-.1166400E+07 .3940000E+00
CASE NUMBER 744 GROUP NUMBER 1
.5724334E+01 .1144867E+04 .2000000E+03 .3577709E+03 .1788854E+01 .1908111E+01-.3219938E+02 .7290000E+03
.3333333E+00-.1030380E+03 .4000000E+05 .2289734E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.5962848E+00-.1043260E+05-.1800000E+02 .4173040E+04-.2060760E+05 .1458000E+06-.4121520E+07-.3338432E+05
-.6439876E+04-.1287975E+07-.1166400E+07 .4002000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 745 GROUP NUMBER 1
.5984748E+01 .1198950E+04 .2000000E+03 .3633180E+03 .1816580E+01 .1998249E+01-.3269862E+02 .7290000E+03
.3333333E+00-.1079055E+03 .4000000E+05 .2397899E+05-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.6055301E+00-.1059435E+05-.1800000E+02 .4370171E+04-.2158109E+05 .1458000E+06-.4316218E+07-.3496137E+05
-.6539725E+04-.1307945E+07-.1166400E+07 .4066000E+00
CASE NUMBER 746 GROUP NUMBER 1
.6269290E+01 .1253858E+04 .2000000E+03 .3687818E+03 .1843509E+01 .2089763E+01-.3319036E+02 .7290000E+03
.3333333E+00-.1128472E+03 .4000000E+05 .2507716E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.6146363E+00-.1075368E+05-.1800000E+02 .4570313E+04-.2256944E+05 .1458000E+06-.4513889E+07-.3656250E+05
-.6638072E+04-.1327614E+07-.1166400E+07 .4131000E+00
CASE NUMBER 747 GROUP NUMBER 1
0. 0. .2000000E+030. 0. 0. 0. .1000000E+04
.3162278E+000. .4000000E+050. .5832000E+04-.5692100E+01 .4000000E+08 .6324555E+02
0. 0. -.1800000E+020. 0. .2000000E+060. 0.
0. 0. -.1166400E+07 .2604000E+00
CASE NUMBER 748 GROUP NUMBER 1
.3535534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .1118034E+00-.1272792E+02 .1000000E+04
.3162278E+00-.6363961E+01 .4000000E+05 .1414214E+05-.5832000E+04-.5692100E+01 .4000000E+08 .6324555E+02
.2236068E+00-.4123847E+04-.1800000E+02 .3535534E+03-.1272792E+04 .2000000E+06-.2545584E+06-.2061923E+04
-.2545584E+04-.5091169E+06-.1166400E+07 .2838000E+00
CASE NUMBER 749 GROUP NUMBER 1
.1000000E+01 .2000000E+03 .2000000E+03 .2000000E+03 .1000000E+01 .3162278E+00-.1800000E+02 .1000000E+04
.3162278E+00-.1800000E+02 .4000000E+05 .4000000E+05-.5832000E+04-.5692100E+01 .4000000E+08 .6324555E+02
.3162278E+00-.5832000E+04-.1800000E+02 .1000000E+04-.3600000E+04 .2000000E+06-.7200000E+06-.5832000E+04
-.3600000E+04-.7200000E+06-.1166400E+07 .3036000E+00
CASE NUMBER 750 GROUP NUMBER 1
.1837117E+01 .3674235E+03 .2000000E+03 .2449490E+03 .1224745E+01 .5809475E+00-.2204541E+02 .1000000E+04
.3162278E+00-.3306811E+02 .4000000E+05 .7348469E+05-.5832000E+04-.5692100E+01 .4000000E+08 .6324555E+02
.3872983E+00-.7142712E+04-.1800000E+02 .1837117E+04-.6613622E+04 .2000000E+06-.1322724E+07-.1071407E+05
-.4409082E+04-.8818163E+06-.1166400E+07 .3233000E+00
CASE NUMBER 751 GROUP NUMBER 1
.2828427E+01 .5656854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .8944272E+00-.2545584E+02 .1000000E+04
.3162278E+00-.5091169E+02 .4000000E+05 .1131371E+06-.5832000E+04-.5692100E+01 .4000000E+08 .6324555E+02
.4472136E+00-.8247693E+04-.1800000E+02 .2828427E+04-.1018234E+05 .2000000E+06-.2036468E+07-.1649539E+05
-.5091169E+04-.1018234E+07-.1166400E+07 .3451000E+00
CASE NUMBER 752 GROUP NUMBER 1
.3952847E+01 .7905694E+03 .2000000E+03 .3162278E+03 .1581139E+01 .1250000E+01-.2846050E+02 .1000000E+04
.3162278E+00-.7115125E+02 .4000000E+05 .1581139E+06-.5832000E+04-.5692100E+01 .4000000E+08 .6324555E+02
.5000000E+00-.9221202E+04-.1800000E+02 .3952847E+04-.1423025E+05 .2000000E+06-.2846050E+07-.2305300E+05
-.5692100E+04-.1138420E+07-.1166400E+07 .3704000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 753
.5196152E+01 .1039230E+04 .2000000E+03 .3464102E+03 .172051E+01 .1643168E+01 .3117691E+02 .1000000E+04
.3162278E+00 .9353074E+02 .4000000E+05 .2078461E+06 .5832000E+04 .5692100E+01 .4000000E+08 .6324555E+02
.5477226E+00 .1010132E+05 .1800000E+02 .5196152E+04 .1870615E+05 .2000000E+06 .3741230E+07 .3030396E+05
.6235383E+04 .1247077E+07 .1166400E+07 .3998000E+00
CASE NUMBER 754
.5458113E+01 .1091623E+04 .2000000E+03 .3521363E+03 .1760682E+01 .1726007E+01 .3169227E+02 .1000000E+04
.3162278E+00 .9824604E+02 .4000000E+05 .2183245E+06 .5832000E+04 .5692100E+01 .4000000E+08 .6324555E+02
.5567764E+00 .1026830E+05 .1800000E+02 .5458113E+04 .1964921E+05 .2000000E+06 .3929842E+07 .3183172E+05
.6338454E+04 .1267691E+07 .1166400E+07 .4052000E+00
CASE NUMBER 755
.0. 0. .2000000E+030. 0. 0. 0. .1728000E+04
.2886751E+000. .4000000E+050. .5832000E+04. .5196152E+01 .6912000E+08 .5773503E+02
.0. 0. .1800000E+020. .3456000E+060. 0.
.0. 0. .1166400E+07 .2669000E+00
CASE NUMBER 756
.3535534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .1020621E+00 .1272792E+02 .1728000E+04
.2886751E+00 .6363961E+01 .4000000E+05 .1414214E+05 .5832000E+04 .5196152E+01 .6912000E+08 .5773503E+02
.2041241E+00 .4123847E+04 .1800000E+02 .6109403E+03 .1272792E+04 .3456000E+06 .2545584E+06 .2061923E+04
.2545584E+04 .5091169E+06 .1166400E+07 .2922000E+00
CASE NUMBER 757
.1000000E+01 .2000000E+03 .2000000E+03 .1000000E+01 .2886751E+00 .1800000E+02 .1728000E+04
.2886751E+00 .1800000E+02 .4000000E+05 .4000000E+05 .5832000E+04 .5196152E+01 .6912000E+08 .5773503E+02
.2886751E+00 .5832000E+04 .1800000E+02 .1728000E+04 .3600000E+04 .3456000E+06 .7200000E+06 .5832000E+04
.3600000E+04 .7200000E+06 .1166400E+07 .3157000E+00
CASE NUMBER 758
.1837117E+01 .3674235E+03 .2000000E+03 .2448490E+03 .1224745E+01 .5303301E+00 .2204541E+02 .1728000E+04
.2886751E+00 .3306811E+02 .4000000E+05 .7348469E+05 .5832000E+04 .5196152E+01 .6912000E+08 .5773503E+02
.3535534E+00 .7142712E+04 .1800000E+02 .3174539E+04 .6613622E+04 .3456000E+06 .1322724E+07 .1071407E+05
.4409082E+04 .8818163E+06 .1166400E+07 .3369000E+00
CASE NUMBER 759
.2828427E+01 .5656854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .8164866E+00 .2545584E+02 .1728000E+04
.2886751E+00 .5091169E+02 .4000000E+05 .1131371E+06 .5832000E+04 .5196152E+01 .6912000E+08 .5773503E+02
.4082483E+00 .8247693E+04 .1800000E+02 .4887522E+04 .1018234E+05 .3456000E+06 .2036468E+07 .1649539E+05
.5091169E+04 .1018234E+07 .1166400E+07 .3613000E+00
CASE NUMBER 760
.3952847E+01 .7905694E+03 .2000000E+03 .3162278E+03 .1581139E+01 .1141089E+01 .2846050E+02 .1728000E+04
.2886751E+00 .7115125E+02 .4000000E+05 .1581139E+06 .5832000E+04 .5196152E+01 .6912000E+08 .5773503E+02
.4564355E+00 .9221202E+04 .1800000E+02 .6830520E+04 .1423025E+05 .3456000E+06 .2846050E+07 .2305300E+05
.5692100E+04 .1138420E+07 .1166400E+07 .3897000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 761
.4192374E+01 .8384748E+03 .2000000E+03 .3224903E+03 .1612452E+01 .1210234E+01 .2902413E+02 .1728000E+04
.2886751E+00 .7546273E+02 .4000000E+05 .1676950E+06 .5832000E+04 .5196152E+01 .6912000E+08 .5773503E+02
.1856953E+00 .4123847E+04 .1800000E+02 .7244422E+04 .1509255E+05 .3456000E+06 .3018509E+07 .2444993E+05
.5804826E+04 .1160965E+07 .1166400E+07 .3958000E+00
CASE NUMBER 762
.0. 0. .2000000E+030. 0. 0. 0. .3048625E+04
.2626129E+000. .4000000E+050. .5832000E+04. .4727032E+01 .1219450E+09 .5252257E+02
.0. 0. .1800000E+020. .6097250E+060. 0.
.0. 0. .1166400E+07 .2765000E+00
CASE NUMBER 763
.3535534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .9284767E+01 .1272792E+02 .3048625E+04
.2626129E+00 .6363961E+01 .4000000E+05 .1414214E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.1856953E+00 .4123847E+04 .1800000E+02 .1077852E+04 .1272792E+04 .6097250E+06 .2545584E+06 .2061923E+04
.2545584E+04 .5091169E+06 .1166400E+07 .3034000E+00
CASE NUMBER 764
.1000000E+01 .2000000E+03 .2000000E+03 .1000000E+01 .2626129E+00 .1800000E+02 .3048625E+04
.2626129E+00 .1800000E+02 .4000000E+05 .4000000E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.2626129E+00 .5832000E+04 .1800000E+02 .3048625E+04 .3600000E+04 .6097250E+06 .7200000E+06 .5832000E+04
.3600000E+04 .7200000E+06 .1166400E+07 .3299000E+00
CASE NUMBER 765
.1837117E+01 .3674235E+03 .2000000E+03 .2448490E+03 .1224745E+01 .4824506E+00 .2204541E+02 .3048625E+04
.2626129E+00 .3306811E+02 .4000000E+05 .7348469E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.3216338E+00 .7142712E+04 .1800000E+02 .5600682E+04 .6613622E+04 .6097250E+06 .1322724E+07 .1071407E+05
.4409082E+04 .8818163E+06 .1166400E+07 .3538000E+00
CASE NUMBER 766
.2023858E+01 .4047715E+03 .2000000E+03 .2529822E+03 .1264911E+01 .5314911E+00 .2276840E+02 .3048625E+04
.2626129E+00 .3642944E+02 .4000000E+05 .8095431E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.3321819E+00 .7376961E+04 .1800000E+02 .6169983E+04 .7285888E+04 .6097250E+06 .1457178E+07 .1180314E+05
.4553680E+04 .9107360E+06 .1166400E+07 .3595000E+00
CASE NUMBER 767
.2216529E+01 .4432058E+03 .2000000E+03 .2607681E+03 .1303840E+01 .5820890E+00 .2346913E+02 .3048625E+04
.2626129E+00 .3989752E+02 .4000000E+05 .8866115E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.3424053E+00 .7603998E+04 .1800000E+02 .6757365E+04 .7979504E+04 .6097250E+06 .1595901E+07 .1292680E+05
.4693826E+04 .9387651E+06 .1166400E+07 .3647000E+00
CASE NUMBER 768
.2414953E+01 .4829907E+03 .2000000E+03 .2683282E+03 .1341641E+01 .6341978E+00 .2414953E+02 .3048625E+04
.2626129E+00 .4346916E+02 .4000000E+05 .9659814E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.3523321E+00 .7824449E+04 .1800000E+02 .7362287E+04 .8693832E+04 .6097250E+06 .1738766E+07 .1408401E+05
.4829907E+04 .9659814E+06 .1166400E+07 .3701000E+00

```

FRIDAY, JUL 2, 1976

## TRANSGENERATED

DATA INPUT

CASE NUMBER 769

GROUP NUMBER 1

.2618969E+01 .5237939E+03 .2000000E+03 .2756810E+03 .1378405E+01 .6877750E+00 .2481129E+02 .3048625E+04  
 .2626129E+00 .4714145E+02 .4000000E+05 .1047588E+06 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02  
 .3619889E+00 .8038857E+04 .1800000E+02 .7984255E+04 .9428289E+04 .6097250E+06 .1885658E+07 .1527383E+05  
 .4962258E+04 .9924515E+06 .1166400E+07 .3757000E+00

CASE NUMBER 770

GROUP NUMBER 1

.2828427E+01 .5656854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .7427814E+00 .2545584E+02 .3048625E+04  
 .2626129E+00 .5091169E+02 .4000000E+05 .1131371E+06 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02  
 .3713907E+00 .8247693E+04 .1800000E+02 .8622814E+04 .1018234E+05 .6097250E+06 .2036468E+07 .1649539E+05  
 .5091169E+04 .1018234E+07 .1166400E+07 .3814000E+00

A P P E N D I X    B

ANALYSIS OF COVARIANCE COMPUTER PROGRAM LISTING

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This section contains the FORTRAN source listings for program BMD04V and its associated subroutines, presented in the following order:

PROGRAM BMD04V

Subroutines

MINV

GRSPSEL

PATTY2

TG41

TPWD

WRT

LDAY

CONF

```

PROGRAM BMD04V(INPUT,OUTPUT,TAPE4,TAPE5=INPUT,TAPE6=OUTPUT,TAPE1,
CTAPE2,TAPE3,TAPE7,TAPE8,TAPE9)
C      BMD04V                                00000000
C      THIS IS A SIFTED VERSION OF BMD04V ORIGINALLY WRITTEN IN 00000020
C      FORTRAN II. SOME MODIFICATIONS WERE MADE TO MAKE IT OPERABLE 00000030
C      AND SLIGHTLY MORE EFFICIENT THAN THE SIFTED VERSION.          00000040
C                                                                    00000050
C      CODE=PROBLEM IDENTIFICATION                                00000060
C      KVF=NO. OF VARIABLE FORMAT CARDS                          00000070
C      LYNN=NO. OF TREATMENT DEFINITION CARDS                   00000080
C      NADD=NO. OF VARIABLES TO BE ADDED AFTER TG               00000090
C      NCARD=NO. OF CARDS/CASE                                  00000100
C      NCASE=NO. OF CASES                                       00000110
C      NCOV=NO. OF COVARIATES                                    00000120
C      NDV=NO. OF THE DEPENDENT VARIABLE                       00000130
C      NGRPS=NO. OF TREATMENT GROUPS                           00000140
C      NTAPE=LOGICAL TAPE NO. FOR INPUT DATA                  00000150
C      NTG=NO. OF TG CARDS                                      00000160
C      REP=REPROCESS SAME DATA MATRIX                         00000170
C
C      REAL KODE,NAMES,KKK                                00000185
C      DOUBLE PRECISION Z,DB,DE,DT
C      DIMENSION NAMES(36),KKK(100),TMP(8),INDX(8),WHEN(3)
C      DIMENSION NEW(99),JUMP(99),NA(99),BN(99),NSAM(99),FMT(80),
C      IDATA(100),NSUB(99,6),CONT(99,6),REL(99,6),OPER(99,6),NG(99),X(36),
C      2SSVAR(99,36),TOTXX(36,36),TOTXY(36),TREXX(36,36),TREXY(36),
C      3ERRXX(36,36),ERRXY(36),LLL(36),B(35),C(35),D(35),
C      4SEB(35),SEC(35),SED(35),ADY(99),SEADY(99),A(99),SS(99),YY(99)
C      5,INDEX1(100),INDEX2(36),IX(8),Z(125),IY(35),IZ(35)
C      6,ERRCC(36,36),TRECC(36,36),TOTCC(36,36),NCG(99),SDWG(99),VWG(99)
C      COMMON DATA , NSUB , CONT , REL , OPER , NG
C      COMMON LH , NEW , JUMP , NA , BN , IERROR
C      COMMON NVAR , NTG , NCASE
C      COMMON /WT/A,B,C,D,SEB,SEC,SED,SSVAR,ADY,SEADY,YAC,WHEN
C      SER(X)=1.+X*((X/1.414213562)**2)+((X/1.817120593)**3)
C      1+((X/2.13363839)**4)+((X/2.605171085)**5)+((X/2.993795166)**6)
C      2+((X/3.380015161)**7)+((X/3.7643506)**8)+((X/4.147166272)**9)
C      3+((X/4.528728687)**10)+((X/4.909238779)**11)+((X/5.288851594)**12)
C      4+((X/5.667691177)**13)+((X/6.045855167)**14)+((X/6.423424746)**15)
C      5+((X/6.800466801)**16)+((X/7.177037353)**17)+((X/7.553183862)**18)
C      6+((X/7.928946849)**19)+((X/8.304361204)**20)+((X/8.679457224)**21)
C      5 FORMAT(1H1)
C      3 FORMAT(1H1,105X,3A10)
102  FORMAT(' BMD04V - ANALYSIS OF COVARIANCE - MULTIPLE COVARIATES - R00000300
REVISD OCTOBER 2, 1972*/
293H HEALTH SCIENCES COMPUTING FACILITY, UCLA ( NADC REVISI
30N JULY 2, 1976 J.J. FRANZ )))
WRITE(6,5)
ITAPE=2                                00000330
REWIND ITAPE                           00000340
IT3=3                                  00000350
NTAPE=5                                00000360
JTAPE=7
DATA A124/6HFINISH/,A125/6HSAMSIZ/,A126/6HGRPDEF/,A321/6HTRNGEN/00000370
1,A421/6HCVRSEL/,A521/6HLAB /,P123/6HPROBLM/ 00000380
DATA A123/3HYES/
CALL LDAY(WHEN)
999 READ (5,100)TODE,CODE,NGRPS,NCASE,NCARD,NCOV,NADD,NDV,OUT,INAM,REP00000400
1,LYNN,WRES,TRES,VAR,SSQ,MCDR,CORR,FCAST,REW,NTG,MTAPE,KVF
NITP=0                                00000420

IF(TODE.NE.A124) GO TO 1                00000430
2 IF(NTAPE.LE.5) GO TO 4                00000440
REWIND NTAPE                            00000450
4 STOP                                  00000460
1 REWIND 8
REWIND 9
WRITE(6,3) WHEN
ZQQQ=P123
IF(TODE.NE.P123) GO TO 446              00000480
IF(NGRPS.LE.0) GO TO 456                00000490
IF(NCOV.LT.2) GO TO 496                 00000500
GO TO 400                               00000510
446 WRITE (6,4446) ZQQQ,TODE             00000520
4446 FORMAT(1H0,A6,60H CARD EXPECTED. THE FIRST SIX COLUMNS OF THE CARD00000530
1 READ WERE ,A6)
GO TO 2                                 00000540
441 WRITE (6,4441)                       00000550
4441 FORMAT(40H0ILLEGAL NUMBER OF TRANSGENERATION CARDS)
GO TO 2                                 00000560
1441 WRITE(6,2441)                       00000570
2441 FORMAT(31H0PROBLEM HAS TOO MANY VARIABLES)
GO TO 2                                 00000580
1442 WRITE(6,2442)                       00000590
2442 FORMAT(44H0ILLEGAL NUMBER IN COL.24-26 ON PROBLM CARD.)
GO TO 2                                 00000600
448 WRITE(6,4488)                       00000610
4488 FORMAT(55H0VIOLATING EITHER RULE(2) OR RULE(5) ON PAGE 525 OF BMD)
GO TO 2                                 00000620
491 WRITE(6,4910)                       00000630
4910 FORMAT(41H0NUMBER OF GROUP DEFINITION CARDS ILLEGAL)
GO TO 2                                 00000640
496 WRITE(6,4969)                       00000650
4969 FORMAT(35H0ILLEGAL NUMBER OF VARIATES READ IN)
GO TO 2                                 00000660
456 WRITE(6,4569)                       00000670
4569 FORMAT(35H0ILLEGAL NUMBER OF TREATMENT GROUPS)
GO TO 2                                 00000680
443 WRITE (6,4443)                       00000690
4443 FORMAT(50H0THE NUMBER OF THE INPUT TAPE CANNOT BE 2 OR 3 )
GO TO 2                                 00000700
1440 WRITE(6,2440) IL                    00000710
2440 FORMAT(64H0PROBLEM HAS TOO MANY VARIABLES FOR THE NUMBER OF CASES
1IN GROUP,15)
GO TO 2                                 00000720
401 WRITE (6,403)                        00000730
GO TO 2                                 00000740
400 WRITE (6,102)                        00000750
BACKSPACE 5
READ (5,114) (IX(J),J=1,8)              00000760
WRITE (6,98) (IX(J),J=1,8)              00000770
98 FORMAT(1X,8A10,/)
WRITE (6,103)CODE,NGRPS,NCASE,NCARD,NCOV,NADD,NDV,OUT,INAM,REP,LY00000830
1NN,WRES,TRES,VAR,CORR,FCAST,REW,NTG,MTAPE,KVF
IF((NCOV+NADD)*(NCOV+NADD-100).GE.0)GO TO 1441 00000850
IF((NADD + 98) * (NADD - 35) .GE. 0) GO TO 1442 00000860
IF((MTAPE-ITAPE)*(MTAPE-IT3) .EQ. 0) GO TO 443 00000870
IF(REW.EQ.A123)CALL TPWD(MTAPE,NTAPE)
NVAR=NCOV                                00000890
KIT3=0                                  00000900
REWIND IT3                              00000910

```

```

REWIND JTAPE
ERROR=0
DO 332 I=1,99
332 DATA(I)=0.0
DO 333 I=1,36
    NAMES(I)=0
    INDEX1(I)=0
333 INDEX2(I)=0
    LN=NVAR+1+NADD
    C NVAR1=LN-1
      LR=NVAR
      IF(LH.GE.38.OR.LH.LE.2)GO TO 1441
      IF(KVF.GT.0.AND.KVF.LE.10)GO TO 410
      WRITE (6,9999)
      KVF = 1
410 ASSIGN 50 TO NSKIP
      IF(NTG) 441,10,11
11 ASSIGN 49 TO NSKIP
      IF(NTG.GT.99) GO TO 441
      ZQQQ=A321
      DO 411 I=1,NTG
          READ (5,106)TODE,NEW(I),JUMP(I),NA(I),BN(I)
          IF(TODE.NE.A321) GO TO 446
          IF(MOD(I,50).NE.1)GO TO 12
          WRITE(6,3) WHEN
          WRITE (6,104)
          WRITE (6,105)
12 WRITE (6,107)I,NEW(I),JUMP(I),NA(I),BN(I)
          IF((JUMP(I)-18)*(JUMP(I)-19)*(JUMP(I)-40).EQ. 0) GO TO 4115
          IF(JUMP(I)-41)4111,4111,4115
4111 IF((JUMP(I)-25)*(39-JUMP(I)) .LT. 0) GO TO 411
4115 WRITE (6,150)I
      LYNN=99
411 CONTINUE
10 IF(LYNN)491,14,13
13 WRITE(6,3) WHEN
      WRITE (6,110)
      IJ=0
      DATA STAR/4H* /
      DO 21 I=1,LYNN
          READ (5,111)TODE,NG(I),(NSUB(I,J),REL(I,J),CONT(I,J),OPER(I,J),J=100001250
          1,6)
          ZQQQ=A126
          IF(TODE.NE.A126) GO TO 446
          DO 16 LL=1,6
          IF(OPER(I,LL).NE.STAR)GO TO 16
          IK=LL+3
          IJ=IJ+IK
          GO TO 18
16 CONTINUE
18 IF(IJ.LE.50)GO TO 19
      IJ=IK
      WRITE(6,3) WHEN
      WRITE (6,110)
19 WRITE (6,112)NG(I)
      DO 22 J=1,6
          WRITE (6,113)NSUB(I,J),REL(I,J),CONT(I,J),OPER(I,J)
          IF(OPER(I,J) .EQ. STAR) GO TO 21
22 CONTINUE
21 CONTINUE
      GO TO 15
14 NCARDS=(NGRPS+21)/22
      N2=0
      WRITE (6,3) WHEN
      WRITE (6,155)
      DO 1450 J=1,NCARDS
          N1=N2+1
          N2=N2+22
          IF(N2 .LE. 99) GO TO 1430
          N2=99
1430 READ (5,109)TODE,(NSAM(I),I=N1,N2)
          WRITE (6,157)TODE,(NSAM(I),I=N1,N2)
          BACKSPACE 5
          READ (5,108)TODE,(NSAM(I),I=N1,N2)
          ZQQQ=A125
          IF(TODE.NE.A125) GO TO 446
1450 CONTINUE
15 IF(INAM)401,17,501
501 N1=0
      WRITE(6,3) WHEN
      WRITE (6,125)
503 READ(5,504)TODE,(INDX(I),TMP(I),I=1,7)
504 FORMAT(A2,3X,7(I4,A6))
      IF(TODE.NE.A521)GO TO 446
      DO 505 I=1,7
          IF(INDX(I).EQ.0)GO TO 505
          N1=N1+1
          INDEX1(N1)=INDX(I)
          KKK(N1)=TMP(I)
505 CONTINUE
      BACKSPACE 5
      READ(5,506)(INDX(I),I=1,7)
      WRITE(6,126)(INDX(I),TMP(I),I=1,7)
506 FORMAT(6X,7(A4,6X))
      IF(N1.LT.INAM)GO TO 503
17 KVF=KVF+8
      WRITE(6,3) WHEN
      WRITE (6,1090)
      READ (5,114)(FMT(I),I=1,KVF)
      WRITE(6,209)(FMT(I),I=1,KVF)
209 FORMAT(1X,8A10)
      IF( REP .EQ.A123) GO TO 37
      K1=NCARD+NCASE
      KIT3=1
      IF(NTAPE.NE.5) GO TO 3777
      DO 35 I=1,K1
          READ (NTAPE,114) (IX(J),J=1,8)
          WRITE (IT3,114) (IX(J),J=1,8)
          END FILE IT3
          NLAST=IT3
37 NTAPE=NLAST
3777 KNTP=KIT3
      IF(KNTP.EQ.0) GO TO 36
      REWIND NTAPE
36 IF(LYNN .GT. 0) GO TO 26
      NITP=1
      KNTP=1
      DO 27 I=1,NGRPS
          NN=NSAM(I)
          DO 27 J=1,NN

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      READ (NTAPE,FMT)(DATA(K),K=1,NVAR)
      DATA(100)=1
      WRITE(ITAPE)(DATA(K),K=1,NVAR),DATA(100)
27  CONTINUE
      GO TO 28
26  DO 29 I=1,99
28  NSAM(I)=0
      KNTF=1
      DO 30 I=1,NCASE
      DATA(100)=0.0
      READ (NTAPE,FMT)(DATA(J),J=1,NVAR)
      DO 31 J=1,LYNM
      CALL GRPSEL(J)
      IF(J.GT.0) GO TO 299
      READ (5,151)KODE,NCO
      IF(NITP.EQ.0) GO TO 88
      REWIND ITAPE
88  IF(NCO.GE.33) GO TO 999
      READ (5,151)KODE
      GO TO 999
299  IF(DATA(100).LE.0.) GO TO 31
      KK=NG(J)
      NSAM(KK)=NSAM(KK)+1
      NITP=1
      WRITE(ITAPE)(DATA(K),K=1,NVAR),DATA(100)
      GO TO 30
31  CONTINUE
30  CONTINUE
28  END FILE ITAPE
      REWIND ITAPE
      REWIND NTAPE
      IF(LYNM.LE.0) GO TO 43
      JJ=0
      DO 39 I=1,99
39  NG(I)=0
      DO 40 I=1,99
      IF(NSAM(I).LE.0) GO TO 40
      JJ=JJ+1
      NG(JJ)=NSAM(I)
      NSAM(I)=JJ
40  CONTINUE
      JX=MAX0(JJ,NGRPS)
      NGRPS=JJ
      J=0
      DO 45 I=1,JX
      NNG=0
      IF(NSAM(I).EQ.0) GO TO 41
      J=J+1
      NNG=NG(J)
41  IF(MOD(I,50).NE.1) GO TO 45
      WRITE(6,3) WHEN
      WRITE (6,115)
45  WRITE (6,116)I,NSAM(I),NNG
      GO TO 252
43  DO 251 I=1,NGRPS
251  NG(I)=NSAM(I)
252  NCOV=NVAR+NADD
      NCOV=NCOV+NADD-1
      DO 46 I=1,NVAR
      TOTXY(I)=0.0
      TREXY(I)=0.0
      ERRXY(I)=0.0
      DO 46 J=1,NVAR
      TOTXX(I,J)=0.0
      TREXX(I,J)=0.0
      ERRXX(I,J)=0.0
46  DO 47 I=1,NGRPS
      DO 47 J=1,NVAR
47  SSVAR(I,J)=0.0
      ASSIGN 490 TO MUD
      READ (5,152)TODE,NCO, (INDEX2(I),I=1,35)
      ZQQQ=A421
      IF(TODE.NE.A421) GO TO 446
      WRITE(6,3) WHEN
      WRITE (6,154)
      WRITE (6,153)TODE,NCO, (INDEX2(I),I=1,35)
      BACKSPACE 5
      READ (5,151)NCO, (INDEX2(I),I=1,35)
      IF(NCO.LE.32) GO TO 38
      READ (5,152)TODE, (INDEX2(I),I=33,35)
      IF(TODE.NE.A421) GO TO 446
      WRITE (6,153)TODE, (INDEX2(I),I=33,35)
      BACKSPACE 5
      READ (5,151)NCO, (INDEX2(I),I=33,35)
38  NNCO=NCO
      DO 44 I=1,NCO
      IF(INDEX2(I).LE.0) NNCO=NNCO-1
44  CONTINUE
      NCO=NNCO
      IF(NCO.GT.35.OR.(NGRPS+NCO+1).GT.NCASE) GO TO 448
      NCOV=NCO
      NVAR=NCO+1
      INDEX2(NVAR)=NDV
      IF(OUT.NE.A123) GO TO 475
      ASSIGN 417 TO MUD
      MESS=0
      LL=0
      IJ=50/(NCARD+2)
      IF(IJ.LE.0) IJ=1
      WRITE(6,3) WHEN
      WRITE (6,415)
      NITP=1
475  DO 48 II=1,NGRPS
      LG=NG(II)
      DO 48 M=1,LG
      READ(ITAPE)(DATA(L),L=1,LR),DATA(100)
      GO TO MUD,(490,417)
417  MESS=MESS+1
      K=DATA(100)
      LL=LL+1
      IF(LL.LE.IJ) GO TO 51
      LL=1
      WRITE(6,3) WHEN
      WRITE (6,415)
51  WRITE (6,418)MESS,K
      DO 52 L=1,NCARD
      READ (NTAPE,114) (IX(KK),KK=1,8)
52  WRITE (6,250) (IX(KK),KK=1,8)
490  GO TO NSKIP,(49,50)
49  CALL TG41(II,M)

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50 K=DATA(100)                                00002820
WRITE(JTAPE)(DATA(INDEX2(JJ)),JJ=1,NVAR),DATA(100)
IF(LYNN.GT.0) K=NSAM(K)
DO 48 J=1,NVAR
I=INDEX2(J)
SSVAR(K,J)+SSVAR(K,J)+DATA(I)
DO 48 M=1,NVAR
L=INDEX2(M)
TOTXX(J,M)+TOTXX(J,M)+(DATA(I)+DATA(L))
48 CONTINUE
REWIND ITAPE
END FILE JTAPE
REWIND JTAPE
NT=0
DO 54 I=1,NGRPS
IL=I
IF((NG(I)-NCOV-1).LE.0)GO TO 1440
NT=NT+NG(I)
54 CONTINUE
DO 55 J=1,NVAR
X(J)=0.0
DO 55 I=1,NGRPS
55 X(J)=X(J)+SSVAR(I,J)/NT
BIG=NT
DO 56 I=1,NVAR
DO 56 J=1,NVAR
TOTXX(I,J)=TOTXX(I,J)-BIG*X(I)*X(J)
DO 56 K=1,NGRPS
T=NG(K)
TREXX(I,J)=TREXX(I,J)+(SSVAR(K,I)+SSVAR(K,J))/T
56 CONTINUE
TREXX(I,J)=TREXX(I,J)-BIG*X(I)*X(J)
58 ERRXX(I,J)=TOTXX(I,J)-TREXX(I,J)
DO 59 I=1,NGRPS
D(I)=NG(I)
DO 59 J=1,NVAR
59 SSVAR(I,J)=SSVAR(I,J)/D(I)
LL=0
IK=NVAR/6
IF((NVAR-1K*6).GT.0)IK=IK+1
IJ=50/(2*IK+3)
IF(IJ.LE.0)IJ=1
WRITE(6,3) WHEN
DO 63 LT=1,NVAR
LL(LT)=2H (
I=INDEX2(LT)
DO 615 J=1,INAM
IF(I.EQ. INDEX1(J)) GO TO 625
615 CONTINUE
NITP=1
WRITE(ITAPE,888)I
REWIND ITAPE
READ(ITAPE,777)NAMES(LT)
REWIND ITAPE
GO TO 63
625 NAMES(LT)=KKK(J)
63 CONTINUE
DO 60 I=1,NGRPS
LL=LL+1

IF(LL.LE.IJ)GO TO 53
LL=1
WRITE(6,3) WHEN
53 WRITE (6,117) I
60 WRITE (6,119) (LLL(J),NAMES(J),SSVAR(I,J),J=1,NVAR)
WRITE(6,3) WHEN
DO 69 I=1,NVAR
69 WRITE (6,71) NAMES(I),X(I)
IF(FCST.EQ.A123) GO TO 99
IF(CORR.NE.A123)GO TO 130
DO 129 I=1,NVAR
DO 129 J=1,NVAR
TOTCC(I,J)=-.0
TRECC(I,J)=-.0
ERRCC(I,J)=-.0
TOT=TOTXX(I,I)+TOTXX(J,J)
TRE=TREXX(I,I)+TREXX(J,J)
ERR=ERRXX(I,I)+ERRXX(J,J)
IF(TOT.LE..0)GO TO 128
TOTCC(I,J)=TOTXX(I,J)/SQRT(TOT)
128 IF(TRE.LE..0)GO TO 135
TRECC(I,J)=TREXX(I,J)/SQRT(TRE)
135 IF(ERR.LE..0)GO TO 129
ERRCC(I,J)=ERRXX(I,J)/SQRT(ERR)
129 CONTINUE
WRITE(6,3) WHEN
WRITE(6,127)
WRITE(6,121)
CALL PATTY2(TOTCC,NVAR,NAMES,1.)
WRITE(6,3) WHEN
WRITE(6,127)
WRITE(6,125)
CALL PATTY2(ERRCC,NVAR,NAMES,1.)
130 WRITE(6,3) WHEN
WRITE (6,120)
WRITE (6,121)
CALL PATTY2(TOTXX,NVAR,NAMES,1.)
WRITE(6,3) WHEN
WRITE (6,120)
WRITE (6,122)
CALL PATTY2(TREXX,NVAR,NAMES,1.)
WRITE(6,3) WHEN
WRITE (6,120)
WRITE (6,123)
CALL PATTY2(ERRXX,NVAR,NAMES,1.)
DO 64 I=1,NVAR
TOTXY(I)=TOTXX(I,NVAR)
TREXY(I)=TREXX(I,NVAR)
64 ERRXY(I)=ERRXX(I,NVAR)
TOTYY=TOTXY(NVAR)
TREYY=TREXY(NVAR)
ERRYY=ERRXY(NVAR)
K=0
DO 72 I=1,NCOV
DO 72 J=1,NCOV
K=K+1
72 Z(K)=DBLE(TOTXX(J,I))
CALL MINV(Z,NCOV,DT,1Y,1Z)

```

00002840  
00002850  
00002860  
00002870  
00002880  
00002890  
00002900  
  
00002910  
00002920  
  
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00002990  
00003000  
00003010  
  
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00003060  
  
00003080  
00003090  
00003100  
00003110  
00003120  
  
00003130  
00003140  
  
00003150  
00003160  
00003170  
00003180  
00003190  
00003200  
00003210  
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00003230  
00003240  
00003250  
00003260  
00003270  
  
00003300  
00003310  
  
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00003360  
00003370  
  
00003390  
00003400  
00003410  
00003420  
00003430  
00003440  
00003450

```

K=0
DO 73 I=1,NCOV
DO 73 J=1,NCOV
K=K+1
73 TOTXX(J,I)=SNGL(Z(K))
K=0
DO 74 I=1,NCOV
DO 74 J=1,NCOV
K=K+1
74 Z(K)=DBLE(TREXX(J,I))
CALL MINV(Z,NCOV,DB,LY,IZ)
K=0
DO 75 I=1,NCOV
DO 75 J=1,NCOV
K=K+1
75 TREXX(J,I)=SNGL(Z(K))
K=0
DO 76 I=1,NCOV
DO 76 J=1,NCOV
K=K+1
76 Z(K)=DBLE(ERRXX(J,I))
CALL MINV(Z,NCOV,DE,LY,IZ)
K=0
DO 77 I=1,NCOV
DO 77 J=1,NCOV
K=K+1
77 ERRXX(J,I)=SNGL(Z(K))
WRITE(6,3) WHEN
WRITE (6,124)
WRITE (6,121)
CALL PATTY2(TOTXX,NCOV,NAMES,SNGL(DT))
WRITE(6,3) WHEN
WRITE (6,124)
WRITE (6,122)
CALL PATTY2(TREXX,NCOV,NAMES,SNGL(DB))
WRITE(6,3) WHEN
WRITE (6,124)
WRITE (6,123)
CALL PATTY2(ERRXX,NCOV,NAMES,SNGL(DE))
DO 65 I=1,NCOV
B(I)=0.0
C(I)=0.0
D(I)=0.0
DO 65 J=1,NCOV
B(I)=B(I)+ERRXX(I,J)*ERRXX(J)
C(I)=C(I)+TOTXX(I,J)*TOTXX(J)
65 D(I)=D(I)+TREXX(I,J)*TREXX(J)
SSDTRE=0.0
SSDTOT=0.0
SSDERR=0.0
DO 66 I=1,NCOV
SSDERR=SSDERR+B(I)*ERRXX(I)
SSDTRE=SSDTRE+D(I)*TREXX(I)
66 SSDTOT=SSDTOT+C(I)*TOTXX(I)
SSDTRE=SSDTOT-SSDERR
SSATRE=TREYY-SSDTRE
SSATOT=TOTYY-SSDTOT
SSAERR=ERRYY-SSDERR
N1=NGRPS-1
N2=BIG
00003490
00003500
00003520
00003530
00003550
00003560
00003580
00003590
00003600
00003610
00003620
00003630
00003640
00003650
00003660
00003670
00003680
00003690
00003700
00003710
00003720
00003730
00003740
00003750
00003760
00003770
00003780

N2=N2-NGRPS
N3=BIG-1.0
N4=N1
N5=N2-NCOV
N6=N3-NCOV
TEST=SSATOT-SSAERR
DN4=N4
DN5=N5
DN6=N6
DN1=N1
SMATRE=SSATRE/DN4
SMAERR=SSAERR/DN5
ADJTES=TEST/DN1
FTEST=ADJTES/SMAERR
SMATOT=SSATOT/DN6
CALL WRT(N1,N2,N3,N4,N5,N6,TREYY,ERRYY,TOTYY,SSDERR,SSAERR,SMAERR,00003940
*SSDTOT,SSATOT,TEST,FTEST,ADJTES,NCOV,SMATOT,BIG,NGRPS,NAMES,ERRXX,00003950
XTOTXX,TREXX,SMATRE,SSDTRE,SSATRE)
99 DO 604 I=1,NGRPS
VWG(I)=0.
SS(I)=0.
604 YY(I)=0.
VW=0.
VT=0.
VL=0.
DO 601 I=1,NT
READ(JTAPE)(DATA(J),J=1,NVAR),DATA(100)
K=DATA(100)
IF(LYNN.GT.0) K=NSAM(K)
ZEST=YAC
YEST=A(K)
DO 600 J=1,NCOV
ZEST=ZEST+C(J)*DATA(J)
600 YEST=YEST+B(J)*DATA(J)
RES=DATA(NVAR)-YEST
RES1=DATA(NVAR)-ZEST
WRITE(8) RES
VWG(K)=VWG(K)+ABS(RES)
VW=VW+ABS(RES)
VT=VT+ABS(RES1)
PVAR=100.*RES/YEST
IF(ABS(RES).LE.VL)GO TO 592
VL=ABS(RES)
VVL=RES
VEST=YEST
PAR=PVAR
DAT=DATA(NVAR)
IA=1
IB=K
592 SS(K)=SS(K)+(RES*RES)
YY(K)=YY(K)+[(DATA(NVAR)-SSVAR(K,NVAR))
C*(DATA(NVAR)-SSVAR(K,NVAR))]
IF(WRES.NE.A123)GO TO 601
IF(MOD(I,50).NE.1)GO TO 599
WRITE(6,3) WHEN
WRITE(6,596)
WRITE(6,602)
599 WRITE(6,603)I,DATA(NVAR),YEST,RES,PVAR,K
601 CONTINUE
ENDFILE 8

```

```

REWIND 8
WRITE(6,3) WHEN
WRITE(6,594)
WRITE(6,602)
WRITE(6,603) IA, DAT, VEST, VVL, PAR, IB
DO 598 I=1, NGRPS
598 VWG(I)=VWG(I)/FLOAT(NG(I)-1)
VW=VW/FLOAT(NT-1)
VT=VT/FLOAT(NT-1)
REWIND JTAPE
VL=0.
DO 608 I=1, NT
READ(JTAPE)(DATA(J), J=1, NVAR), DATA(100)
K=DATA(100)
IF(LYNN, GT. 0) K=NSAM(K)
ZEST=A(K)
YEST=YAC
DO 609 J=1, NCOV
ZEST=ZEST+B(J)=DATA(J)
609 YEST=YEST+C(J)=DATA(J)
RES=DATA(NVAR)-YEST
RES1=DATA(NVAR)-ZEST
WRITE(9) RES
PVAR=100.*RES/YEST
IF(ABS(RES).LE.VL)GO TO 593
VL=ABS(RES)
VVL=RES
VEST=YEST
PAR=PVAR
DAT=DATA(NVAR)
IA=I
593 IF(TRES, NE. A123) GO TO 608
IF(MOD(I,50).NE.1)GO TO 610
WRITE(6,3) WHEN
WRITE(6,597)
WRITE(6,611)
610 WRITE(6,612) I, DATA(NVAR), YEST, RES, PVAR
608 CONTINUE
ENDFILE 9
REWIND 9
WRITE(6,3) WHEN
WRITE(6,595)
WRITE(6,611)
WRITE(6,612) IA, DAT, VEST, VVL, PAR
IF(MCOR, NE. A123)GO TO 634
WRITE(6,3) WHEN
IF(SSDERR/ERRYY).LT.0.)GO TO 632
SE=SQRT(SSDERR/ERRYY)
IF(SE, GT. 1.)GO TO 632
WRITE(6,627) SE
632 IF(SSDOT/TOTYY).LT.0.)GO TO 633
ST=SQRT(SSDOT/TOTYY)
IF(ST, GT. 1.)GO TO 633
WRITE(6,628) ST
633 WRITE(6,629)
DO 631 I=1, NGRPS
IF((SS(I)/YY(I)).GT.1.)GO TO 631
SEW=SQRT(1.-(SS(I)/YY(I)))
IF(SEW, GT. 1.)GO TO 631
IF(MOD(I,50).NE.1).OR.(I.EQ.1))GO TO 626

WRITE(6,3) WHEN
WRITE(6,629)
626 WRITE(6,630) I, SEW
631 CONTINUE
634 LN=0
552 REWIND JTAPE
REWIND 8
REWIND 9
DO 551 I=1, NGRPS
NCG(I)=NG(I)
551 SDWG(I)=0.
SDW=0.
SDT=0.
NC=NT
ND=NT
DO 557 I=1, NT
READ(JTAPE)(DATA(J), J=1, NVAR), DATA(100)
K=DATA(100)
IF(LYNN, GT. 0) K=NSAM(K)
READ(8) RES
READ(9) RES1
IF(VWG(K).LE.0.)GO TO 540
GS=.5*(RES/VWG(K))*(RES/VWG(K))
IF(GS, GT. 12.5)GO TO 540
SG=SER(GS)/VWG(K)
SYG=EXP(GS)
GO TO 549
540 NCG(K)=NCG(K)-1
GO TO 550
549 SDWG(K)=SDWG(K)+(SYG/SG)
550 IF(VW, LE.0.)GO TO 541
SXX=.5*(RES/VW)*(RES/VW)
IF(SXX, GT. 12.5)GO TO 541
SX=SER(SXX)/VW
SY=EXP(SXX)
GO TO 554
541 NC=NC-1
GO TO 555
554 SDW=SDW+(SY/SX)
555 IF(VT, LE.0.)GO TO 542
SXA=.5*(RES1/VT)*(RES1/VT)
IF(SXA, GT. 12.5)GO TO 542
SA=SER(SXA)/VT
SY1=EXP(SXA)
GO TO 556
542 ND=ND-1
GO TO 557
556 SDT=SDT+(SY1/SA)
557 CONTINUE
DO 543 I=1, NGRPS
IF(NCG(I).LE.0).OR.(SDWG(I).LE.0.)GO TO 543
VWG(I)=.5*(VWG(I)+(SDWG(I)/FLOAT(NCG(I))))
543 CONTINUE
IF(NC, LE.0).OR.(SDW, LE.0.)GO TO 544
VW=.5*(VW+(SDW/FLOAT(NC)))
544 IF(ND, LE.0).OR.(SDT, LE.0.)GO TO 545
VT=.5*(VT+(SDT/FLOAT(ND)))
545 LN=LN+1
IF(LN, LT. 20)GO TO 552
WRITE(6,3) WHEN

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```

WRITE(6,301) VT
WRITE(6,300) VW
WRITE(6,302)
DO 613 I=1,NGRPS
IF((MOD(I,50).NE.1).OR.(I.EQ.1))GO TO 613
WRITE(6,3) WHEN
WRITE(6,302)
613 WRITE(6,303) I,VWG(I)
IF((FCAST.EQ.A123).OR.(SSQ.NE.A123))GO TO 618
DO 606 I=1,NGRPS
IF(MOD(I,50).NE.1)GO TO 614
WRITE(6,3) WHEN
WRITE(6,605)
614 XA=YY(I)-SS(I)
IF(XA.LT.0.)GO TO 606
IF((NG(I)-NCOV-1).GT.0)GO TO 617
WRITE(6,607)I,YY(I),XA,SS(I)
GO TO 606
617 XX=SQRT(SS(I)/FLOAT(NG(I)-NCOV-1))
WRITE(6,607)I,YY(I),XA,SS(I),XX
606 CONTINUE
618 NLAST=NTAPE
REWIND JTAPE
IF(VAR.NE.A123)GO TO 621
WRITE(6,3) WHEN
WRITE(6,419),
MESS=0
LL=0
IK=NVAR/8
IF((NVAR-1K*8).GT.0)IK=IK+1
IJ=50/(IK+2)
IF(IJ.LE.0)IJ=1
DO 620 I=1,NT
MESS=MESS+1
READ(JTAPE)(DATA(J),J=1,NVAR),DATA(100)
K=DATA(100)
IF(LYNN.GT.0) K=NSAM(K)
LL=LL+1
IF(LL.LE.IJ)GO TO 616
LL=1
WRITE(6,3) WHEN
WRITE(6,419)
616 WRITE(6,418)MESS,K
620 WRITE(6,249)(DATA(J),J=1,NVAR)
621 WRITE(6,5)
GO TO 999
70 FORMAT(/23H TABLE OF MEANS (TOTAL)/21H VARIABLE MEAN/)
71 FORMAT(2X,A6,3X,E12.7)
125 FORMAT(/13H LABELS CARDS/)
126 FORMAT(7(5X,A4,A6))
127 FORMAT(19H-CORRELATION MATRIX)
594 FORMAT(/,26H MAXIMUM RESIDUAL (WITHIN))
595 FORMAT(/,25H MAXIMUM RESIDUAL (TOTAL))
596 FORMAT(/,28H TABLE OF RESIDUALS (WITHIN))
597 FORMAT(/,27H TABLE OF RESIDUALS (TOTAL))
602 FORMAT(/9H CASE NO.,6X,7HY VALUE,5X,10HY ESTIMATE,5X,8HRESIDUAL
1,3X,17HPERCENT VARIATION,2X,10HGROUP NO. / )
611 FORMAT(/9H CASE NO.,6X,7HY VALUE,5X,10HY ESTIMATE,5X,8HRESIDUAL
1,3X,17HPERCENT VARIATION / )
603 FORMAT(2X,15,4X,E13.7,1X,E13.7,1X,E13.7,5X,F9.2,9X,I3)

612 FORMAT(2X,15,4X,E13.7,1X,E13.7,1X,E13.7,5X,F9.2)
605 FORMAT(/50H TABLE OF SUM-SQUARES AND STANDARD ERRORS (WITHIN)/61
1H TREATMENT YY SUM-SQUARES SUM-SQUARES STANDARD/59H
2 NO. (DUE) (ABOUT) ERROR./)
607 FORMAT(1X,15,3X,E13.7,1X,E13.7,1X,E13.7,1X,E13.7)
627 FORMAT(/,36H CORRELATION COEFFICIENT (TOTAL) = .E16.10)
628 FORMAT(/,36H CORRELATION COEFFICIENT (WITHIN) = .E16.10)
629 FORMAT(/,25H TREATMENT CORRELATION./,25H NO. COEFFICIE
INT./,16X,8H(WITHIN)./)
630 FORMAT(1X,15,6X,E16.10)
403 FORMAT(48HNEGATIVE NUMBER IS ILLEGAL FOR NUMBER OF LABELS)
1080 FORMAT(26HOTHER VARIABLE FORMAT CARDS/)
100 FORMAT(2A6,12,15,21,13,12,A3,13,A3,12,4A3,3X,4A3,3I2)
103 FORMAT(33H PROBLEM CODE.....A6/
1 33H NUMBER OF TREATMENT GROUPS.....16/
2 33H TOTAL NUMBER OF CASES.....16/
3 33H NUMBER OF CARDS PER CASE.....16/
4 33H NUMBER OF ENTERING VARIABLES.....16/
5 33H NUMBER OF VARIABLES ADDED.....16/
6 33H INDEX OF THE DEPENDENT VARIABLE.....16/
7 33H PRINT DATA INPUT.....3X,A3/
8 33H NUMBER OF VARIABLES NAMED.....16/
9 33H USE DATA CARDS OF LAST PROBLEM.....3X,A3/
* 33H NUMBER OF GROUP DEFINITION CARDS.....16/
1 33H PRINT RESIDUALS (WITHIN).....3X,A3/
2 33H PRINT RESIDUALS (TOTAL).....3X,A3/
3 33H PRINT TRANSGENERATED VARIABLES.....3X,A3/
4 33H PRINT CORRELATION MATRICES.....3X,A3/
5 33H FORECAST DATA INPUT.....3X,A3/
6 33H REWIND INPUT TAPE.....3X,A3/
7 33H NUMBER OF TRANSGENERATION CARDS.....16/
8 33H SPECIFIED 8CD TAPE NUMBER.....16/
9 33H NUMBER OF VARIABLE FORMAT CARDS.....16)
104 FORMAT(/23H TRANS-GENERATION CARDS/)
105 FORMAT(30H CARD NEW TRANS OLD CONST./33H NO. VAR. CODE VAR(A00004840
1) OR VAR(B)/)
106 FORMAT(A6,13,12,13,F6.0)
107 FORMAT(14,15,16,15,4X,F10.5)
108 FORMAT(A6,22I3)
109 FORMAT(A6,22A3)
110 FORMAT(23HOGROUP DEFINITION CARDS)
111 FORMAT(A6,12,6(12,A2,F5.0,A1))
112 FORMAT(/20H0A CASE IS IN GROUP 12,4H IF, )
113 FORMAT(5H VAR(12,5H) IS A2,1H F10.5,1H A1)
114 FORMAT(8A10)
115 FORMAT(/26H GROUP NO. SAMPLE/25H SPECIFIED ASSIGNED* SIZE00004950
//)
116 FORMAT(5X,12,7X,12,4X,15)
117 FORMAT(/30H VARIABLE MEANS FOR EACH GROUP/)
118 FORMAT(/11H GROUP NO. 12/)
119 FORMAT(6(A2,A6,E13.7,*)//)
120 FORMAT(41H-SUMS OF SQUARES AND CROSS PRODUCT MATRIX)
121 FORMAT(11H FOR TOTAL.//)
122 FORMAT(15H FOR TREATMENT.//)
123 FORMAT(11H FOR ERROR.//)
124 FORMAT(26H-INVERSE OF THE COVARIATES/21H CROSS PRODUCT MATRIX)
150 FORMAT(1H029X20HTRANSGENERATION CARD13,35H HAS INVALID CODE FOR TH00005390
115 PROGRAM.)
151 FORMAT(6X,36I2)
152 FORMAT(A6,36A2)

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**B - 11**

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      M(K)=K
      KK=KK+K
      BIGA=A(KK)
      DO 20 J=K,N
      IZ=K+(J-1)
      DO 20 I=K,N
      IJ=IZ+I
10  IF(DABS(BIGA)-DABS(A(IJ))) 15,20,20
15  BIGA=A(IJ)
      L(K)=I
      M(K)=J
20  CONTINUE
C
C      INTERCHANGE ROWS
C
      J=L(K)
      IF(J-K) 35,35,25
25  KI=K-N
      DO 30 I=1,N
      KI=KI+M
      HOLD=-A(KI)
      JI=KI-K+J
      A(KI)=A(JI)
30  A(JI)=HOLD
C
C      INTERCHANGE COLUMNS
C
35  I=M(K)
      IF(I-K) 45,45,38
38  JP=N+(I-1)
      DO 40 J=1,N
      JK=NK+J
      JI=JP+J
      HOLD=-A(JK)
      A(JK)=A(JI)
40  A(JI)=HOLD
C
C      DIVIDE COLUMN BY MINUS PIVOT (VALUE OF PIVOT ELEMENT IS
C      CONTAINED IN BIGA)
C
45  IF(BIGA) 48,46,48
46  D=0.0
      RETURN
48  DO 55 I=1,N
      IF(I-K) 50,55,50
50  IK=NK+I
      A(IK)=A(IK)/(-BIGA)
55  CONTINUE
C
C      REDUCE MATRIX
C
      DO 65 I=1,N
      IK=NK+I
      HOLD=A(IK)
      IJ=I-N
      DO 65 J=1,N
      IJ=IJ+M
      IF(I-K) 60,65,60
60  IF(J-K) 62,65,62
62  KJ=IJ-I+K
      A(IJ)=HOLD+A(KJ)+A(IJ)
65  CONTINUE
C
C      DIVIDE ROW BY PIVOT
C
      KJ=K-N
      DO 75 J=1,N
      KJ=KJ+M
      IF(J-K) 70,75,70
70  A(KJ)=A(KJ)/BIGA
75  CONTINUE
C
C      PRODUCT OF PIVOTS
C
      D=D*BIGA
C
C      REPLACE PIVOT BY RECIPROCAL
C
      A(KK)=1.0/BIGA
80  CONTINUE
C
C      FINAL ROW AND COLUMN INTERCHANGE
C
      K=N
100 K=(K-1)
      IF(K) 150,150,105
105 I=L(K)
      IF(I-K) 120,120,108
108 JQ=N+(K-1)
      JR=N+(I-1)
      DO 110 J=1,N
      JK=JQ+J
      HOLD=A(JK)
      JI=JR+J
      A(JK)=-A(JI)
110 A(JI)=HOLD
120 J=M(K)
      IF(J-K) 100,100,125
125 KI=K-N
      DO 130 I=1,N
      KI=KI+M
      HOLD=A(KI)
      JI=KI-K+J
      A(KI)=-A(JI)
130 A(JI)=HOLD
      GO TO 100
150 RETURN
      END

```

```

MINV 610
MINV 620
MINV 630
MINV 640
MINV 650
MINV 660
MINV 670
MINV 680
MINV 690
MINV 700
MINV 710
MINV 720
MINV 730
MINV 740
MINV 750
MINV 760
MINV 770
MINV 780
MINV 790
MINV 800
MINV 810
MINV 820
MINV 830
MINV 840
MINV 850
MINV 860
MINV 870
MINV 880
MINV 890
MINV 900
MINV 910
MINV 920
MINV 930
MINV 940
MINV 950
MINV 960
MINV 970
MINV 980
MINV 990
MINV1000
MINV1010
MINV1020
MINV1030
MINV1040
MINV1050
MINV1060
MINV1070
MINV1080
MINV1090
MINV1100
MINV1110
MINV1120
MINV1130
MINV1140
MINV1150
MINV1160
MINV1170
MINV1180
MINV1190
MINV1200
MINV1210
MINV1220
MINV1230
MINV1240
MINV1250
MINV1260
MINV1270
MINV1280
MINV1290
MINV1300
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MINV1400
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MINV1440
MINV1450
MINV1460
MINV1470
MINV1480
MINV1490
MINV1500
MINV1510
MINV1520
MINV1530
MINV1540
MINV1550
MINV1560
MINV1570
MINV1580
MINV1590
MINV1600
MINV1610
MINV1620
MINV1630
MINV1640
MINV1650
MINV1660
MINV1670
MINV1680

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C          SUBROUTINE GRPSEL FOR BMD04V          APRIL 1, 1966          00005900
          SUBROUTINE GRPSEL(M)                  00005910
          DIMENSION DATA(100), NSUB(99,6), CONT(99,6), REL(99,6), OPER(99,6), B(6) 00005920
          I, NG(99), E(7)                      00005930
          COMMON DATA , NSUB , CONT , REL , OPER , NG          00005940
          DATA A, O, STAR, E/4HA ,4HD ,4H* ,4HGT ,4HLT ,4HLE ,4HGE , 00005950
          1 2HEQ, 2HNE, 2H /                      00005960
          FB=1.0                                00005970
          ASSIGN 105 TO ISKIP                    00005980
          DO 90 I=1,6                            00005990
500      IS=NSUB(M,I)                            00006000
          IF(REL(M,I) .EQ. E(1)) GO TO 2         00006010
          IF(REL(M,I) .EQ. E(2)) GO TO 4         00006020
          IF(REL(M,I) .EQ. E(3)) GO TO 6         00006030
          IF(REL(M,I) .EQ. E(4)) GO TO 8         00006040
          IF(REL(M,I) .EQ. E(5)) GO TO 10        00006050
          IF(REL(M,I) .EQ. E(6)) GO TO 11        00006060
          IF(REL(M,I) .EQ. E(7)) GO TO 100       00006070
96      WRITE (6,4000)REL(M,I)                  00006080
          M=M+6                                00006090
          GO TO 104                              00006100
          2 IF(DATA(IS)-CONT(M,I))50,50,20      00006110
          4 IF(DATA(IS)-CONT(M,I))20,50,50      00006120
          6 IF(DATA(IS)-CONT(M,I))20,20,50      00006130
          8 IF(DATA(IS)-CONT(M,I))50,20,20      00006140
          10 IF(DATA(IS)-CONT(M,I))50,20,50     00006150
          11 IF(DATA(IS)-CONT(M,I))20,50,20     00006160
          20 B(I)=1.0                          00006170
          GO TO 90                              00006180
          50 B(I)=0.0                          00006190
          90 CONTINUE                          00006200
          100 GO TO ISKIP,(105,125)             00006210
          125 IF(OPER(M-1,6) .NE. A) GO TO 150   00006220
          FB=FB*B(I)                            00006230
          GO TO 175                             00006240
          105 IF(OPER(M,I) .EQ. A) GO TO 147     00006250
          IF(OPER(M,I) .NE. O) GO TO 170        00006260
          147 FB=B(I)                          00006270
          GO TO 175                             00006280
          150 IF(OPER(M-1,6) .EQ. O) GO TO 152   00006290
          I = 6                                00006300
          REL(M,6)=OPER(M-1,6)                 00006310
          GO TO 96                              00006320
          170 FB=B(I)                          00006330
          GO TO 350                             00006340
          152 IF(FB .LE. 0.) GO TO 147          00006350
          175 DO 300 I=1,5                     00006360
          IF(OPER(M,I) .NE. A) GO TO 222        00006370
          FB = FB*B(I+1)                      00006380
          GO TO 300                             00006390
          222 IF(OPER(M,I) .NE. O) GO TO 333     00006400
          IF(FB .GT. 0.) GO TO 300             00006410
          FB=B(I+1)                            00006420
          300 CONTINUE                         00006430
          IF(OPER(M,6) .EQ. STAR) GO TO 350     00006440
          M=M+1                                00006450
          ASSIGN 125 TO ISKIP                   00006460
          GO TO 500                             00006470
          333 IF(OPER(M,I) .EQ. STAR) GO TO 350  00006480
          REL(M,I)=OPER(M,I)                   00006490

          GO TO 96                              00006500
          350 IF(FB .LE. 0.) GO TO 104          00006510
          DATA(100) = NG(M)                   00006520
          104 RETURN                           00006530
          4000 FORMAT(1H0)4X30HILLEGAL OPERATION OR RELATION A2.57H. PROGRAM WILL 00006540
          1 PROCEED TO NEXT JOB, IF ANY, OR TERMINATE.) 00006550
          END                                  00006560

```

```

C          SUBROUTINE PATTY2 FOR BMD04V          APRIL 1, 1966          00006570
SUBROUTINE PATTY2 (A,N,NAMES,D)
DIMENSION NAMES(36),NN(8),A(36,36),WHEN(3)          00006590
REAL NAMES,NN          00006600
CALL LDAY(WHEN)
K=0
IK=50/(N+3)
IF(IK.LE.0)IK=1
IT=1
KK=0          00006610
K1=IT          00006620
K2=MINO(8,N)          00006630
10 KK=KK+8          00006640
IF(N .LE. KK) GO TO 20          00006650
IT=IT+1          00006660
GO TO 10          00006670
20 DO 70 JX=1,IT          00006680
LLL=K2-K1+1          00006690
LL=0          00006700
DO 30 JJ=K1,K2          00006710
LL=LL+1          00006720
30 NN(LL)=NAMES(JJ)          00006730
K=K+1          00006740
IF(K.LE.IK)GO TO 31
K=1
WRITE(6,71) WHEN
31 WRITE (6,50) (NN(II),II=1,LLL)
WRITE (6,80)
DO 40 I=1,N          00006750
40 WRITE (6,60)NAMES(I),(A(I,J),J=K1,K2)          00006770
K1=K2+1          00006780
K2=K1+7          00006790
K2=MINO(K2,N)          00006800
50 FORMAT(1H0,13X,A6,7(8X,A6) )
60 FORMAT(1H ,A6,1X,8E14,7)
80 FORMAT(1H )
90 FORMAT(/17H SINGULAR MATRIX.)
70 CONTINUE          00006830
71 FORMAT(1H1,105X,3A10,7(/))
IF(D .EQ. 0.) WRITE (6,90)
RETURN          00006840
END          00006850

```

```

SUBROUTINE T041(II,M)          00006860
DIMENSIONDATA(100),NSUB(99,6),CONT(99,6),REL(99,6),OPER(99,6),NG(99,6)          00006870
191,NEW(99),JUMP(99),NA(99),BN(99)          00006880
COMMON DATA , NSUB , CONT , REL , OPER , NG          00006890
COMMON LH , NEW , JUMP , NA , BN , IERROR          00006900
COMMON NVAR , NTG , NCASE          00006910
EXTERNAL SIGN          00006915
ASN(X) = ATAN(X/SQRT(1.-X**2))          00006920
SAMPX=NCASE          00006930
PI2=1.57079633          00006940
DO 1010 I=1,NTG          00006950
JOKO=JUMP(I)          00006960
NW=NEW(I)          00006970
IF(NW .GE. 100) GO TO 97          00006980
NAA=NA(I)          00006990
IF(NAA .GE. 100) GO TO 97          00007000
100 NB=BN(I)          00007010
BBN=BN(I)          00007020
D1=DATA(NAA)          00007030
IF(JOKO .LE. 17) GO TO 33          00007040
JOKO=JOKO-2          00007050
IF(JOKO .LE. 22) GO TO 33          00007060
JOKO=23          00007070
33 GO TO (1,2,3,4,5,6,7,8,9,10,11,111,111,111,111,150,111,170,180,190,200)          00007080
1,21,22,230)JOKO          00007100
1 IF( D1 )99,11,12          00007110
11 D2=0.0          00007120
GO TO 1000          00007130
12 D2=SQRT(D1)          00007140
GO TO 1000          00007150
2 IF( D1 )99,13,14          00007160
13 D2=1.0          00007170
GO TO 1000          00007180
14 D2 =SQRT( D1 )+SQRT( D1 +1.0)          00007190
GO TO 1000          00007200
3 IF( D1 .LE. 0.) GO TO 99          00007210
D2=ALOG10(D1)          00007220
GO TO 1000          00007230
4 D2=EXP(D1)          00007240
GO TO 1000          00007250
5 IF( D1 )99,11,17          00007260
17 IF( D1 -1.0)18,19,99          00007270
19 D2=PI2          00007280
GO TO 1000          00007290
18 A=SQRT(D1)          00007300
D2=ASN(A)          00007310
GO TO 1000          00007320
6 A= D1 /(SAMPX+1.0)          00007330
B=A+1.0/(SAMPX+1.0)          00007340
IF(A)99,27,24          00007350
27 D2 =ASN(SQRT(B))          00007360
GO TO 1000          00007370
24 IF(B)99,28,29          00007380
28 IF(A-1.0)285,287,99          00007390
285 D2 =ASN(SQRT(A))+2.0          00007400
GO TO 1000          00007410
287 D2 =3.14159265          00007420
GO TO 1000          00007430
29 A=SQRT(A)          00007440
B=SQRT(B)          00007450

```

```

IF(A .GT. 1. .OR. B .GT. 1.) GO TO 99
D2 =ASN(A)+ASN(B)
GO TO 1000
7 IF( D1 .EQ. 0.) GO TO 99
D2 =1.0/D1
GO TO 1000
8 D2=D1+BBN
GO TO 1000
9 D2=D1+BBN
GO TO 1000
10 IF( D1 )99,11,32
32 D2=D1+BBN
GO TO 1000
111 IF(NB .GE. 100) GO TO 97
NSKIP=JNKE-10
GO TO(110,120,130,140,150,160),NSKIP
110 D2 = D1 +DATA(NB)
GO TO 1000
120 D2 = D1 -DATA(NB)
GO TO 1000
130 D2 = D1 *DATA(NB)
GO TO 1000
140 IF(DATA(NB) .EQ. 0.) GO TO 98
D2 = D1 /DATA(NB)
GO TO 1000
150 IF( D1 -BBN)11,12,13
160 IF( D1 -DATA(NB))11,12,13
170 IF( D1 .LE. 0.) GO TO 99
D2 =ALOG(D1)
GO TO 1000
180 D2 =SIN(D1)
GO TO 1000
190 D2 =COS(D1)
GO TO 1000
20 D2=ATAN(D1)
GO TO 1000
21 IF( D1 )99,11,38
38 IF(NB .GE. 100) GO TO 97
D2=D1+DATA(NB)
GO TO 1000
22 IF(BBN)99,11,40
40 D2=BBN*D1
GO TO 1000
230 IF( D1 .NE. 0.) GO TO 1000
IF(SIGN(10.0, D1 ))43,1000,1000
43 D2=BBN
GO TO 1000
97 WRITE (6,4001)I
GO TO 991
98 NAA=NB
99 WRITE (6,4000)NAA,JUMP(I),II,M
991 WRITE (6,4002)
GO TO 1010
1000 DATA(MW)=D2
1010 CONTINUE
RETURN
4000 FORMAT(17H0DATA OF VARIABLEI4,30H VIOLATES RESTRICTION FOR CODEI3,00008020
130H. THIS WAS FOR TREATMENT GROUPI3,7H SAMPLEI4) 00008030
4001 FORMAT(20H0TRANSGENERATOR CARDI3,44H HAS VARIABLE NUMBERS TOO LARG00008040
1E FOR PROGRAM.) 00008050

4002 FORMAT(32H THE DATA WILL REMAIN UNCHANGED.) 00008060
END 00008070

```

```

C          SUBROUTINE TPWD FOR BMD04V          APRIL 1, 1966          00008080
          SUBROUTINE TPWD(NT1,NT2)          00008090
          IF(NT1)40,10,12          00008100
10        NT1+5          00008110
12        IF(NT1.EQ. NT2) GO TO 19          00008120
          IF(NT2.EQ.5)GO TO 18          00008130
          REWIND NT2          00008140
19        IF(NT1.EQ. 5) GO TO 24          00008150
18        IF(NT1.EQ. 6) GO TO 40          00008160
          REWIND NT1          00008170
24        NT2=NT1          00008180
          RETURN          00008190
40        WRITE (6,49)          00008200
          STOP          00008210
49        FORMAT(25H ERROR ON TAPE ASSIGNMENT)          00008220
          END          00008225

          SUBROUTINE WRT(N1,N2,N3,N4,N5,N6,TREYY,ERRYY,TOTYY,SSDERR,SSAERR, 00008230
          SMAERR,SSDTOT,SSATOT,TEST,FTEST,ADJTES,NCOV,SMATOT,BIG,NGRPS,NAMES00008240
          2,ERRXX,TOTXX,TREXX,SMATRE,SSDTRE,SSATRE)
          REAL NAMES          00008260
          DIMENSION DATA(100),NSUB(99,6),CONT(99,6),REL(99,6),OPER(99,6), 00008270
          *NG(99),X(36),SSVAR(99,36),TOTXX(36,36),ERRXX(36,36),B(35),C(35), 00008280
          ID(35),SEB(35),SEC(35),ADY(99),SEADY(99),NAMES(36),A(99)
          2,TREXX(36,36),SED(35),WHEN(3)
          COMMON DATA,NSUB,CONT,REL,OPER,NG          00008300
          COMMON LH,HEW(99),JUMP(99),NA(99),BN(99),IERROR          00008302
          COMMON NVAR,NTG,NCASE          00008304
          COMMON /WT/A,B,C,D,SEB,SEC,SED,SSVAR,ADY,SEADY,YAC,WHEN
          PRINT 124,WHEN          00008320
          PRINT 125          00008330
          PRINT 126          00008330
          PRINT 127          00008340
          PRINT 128          00008350
          PRINT 129          00008360
          PRINT 127          00008370
          PRINT 130          00008380
          PRINT 127          00008390
          PRINT 131          00008400
          PRINT 132,N1,TREYY          00008420
          PRINT 127          00008430
          PRINT 130          00008440
          PRINT 127          00008440
          PRINT 133,N2,ERRYY,SSDERR,SSAERR,N5,SMAERR          00008470
          PRINT 134          00008480
          PRINT 130          00008490
          PRINT 127          00008490
          PRINT 131          00008520
          PRINT 137          00008530
          PRINT 130          00008530
          PRINT 127          00008540
          PRINT 138,TEST,N1,ADJTES          00008550
          PRINT 127          00008560
          PRINT 126          00008570
          PRINT 139          00008580
          PRINT 140,N1,N5,FTEST          00008590
          PRINT 124,WHEN          00008610
          PRINT 141          00008610
          PRINT 142          00008610
          PRINT 143          00008630
          124 FORMAT(1H1,105X,3A10)          00008640
          125 FORMAT(35X,28HANALYSIS OF COVARIANCE TABLE/)          00008640
          126 FORMAT(1H 93(1H*))          00008650
          127 FORMAT(2H *,11X,1H1,7X,1H1,3(15X,1H1),7X,1H1,15X,1H*)          00008660
          128 FORMAT(2H *,11X,1H1,7X,1H1,15X,33H1 SUM-SQUARES I SUM-SQUARES          00008670
          *I, 7X,1H1,15X,1H*)          00008680
          129 FORMAT(94H * SOURCE I OF I YY I (DUE) I          00008690
          * (ABOUT) I OF I MEAN-SQUARE *)          00008700
          130 FORMAT(2H *,91(1H-),1H*)          00008710
          131 FORMAT(14H * TREATMENT I,7X,1H1,3(15X,1H1),7X,1H1,15X,1H*)          00008710
          132 FORMAT(15H * (BETWEEN) I .15,1H .2H1,E13.7,1H .2(2H1,13X,1H ).2H          00008760
          *I .5X,3H I .13X,2H *)          00008760
          133 FORMAT(15H * ERROR I .15,1X,3(2H1,E13.7,1H ),2H1 15,3H I E13.7          00008760
          X,2H *)          00008760
          134 FORMAT(14H * (WITHIN) I,7X,1H1,3(15X,1H1),7X,1H1,15X,1H*)

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136 FORMAT(15H * + ERROR I ,15,1X,3(2HI E13.7,1H ),2HI 15.3H I E13.7
X,2H *)
137 FORMAT(14H * (TOTAL) 1.7X,1HI,3(15X,1HI),7X,1HI,15X,1H*)
138 FORMAT(55H *DIFFERENCE FOR TESTING ADJUSTED TREATMENT MEANS....I E
*13.7,3H I ,15.3H I ,E13.7,2H *)
139 FORMAT(/54HONULL HYPOTHESIS. NO DIFFERENCE AMONG TREATMENTS AFTER00008820
*/18X,26HADJUSTING WITH COVARIATES.//) 00008830
140 FORMAT(18X,2HF(,15,1H,15,2H)*,F8.3//) 00008840
142 FORMAT(1H 16X,19HTREATMENT (BETWEEN)/) 00008870
DO 68 I=1,NCOV
SED(I)=SMATRE*TRXX(I,I)
IF(SED(I).GT.0.)GO TO 65
PRINT 144,NAMES(I),D(I)
GO TO 64
65 SED(I)=SQRT(SED(I))
T=D(I)/SED(I)
CALL CONF(N4,T,P)
PRINT 144,NAMES(I),D(I),SED(I),T,P
68 CONTINUE
PRINT 124,WHEN
PRINT 141 00008890
PRINT 145 00008900
PRINT 143 00008910
DO 69 I=1,NCOV
SEB(I)=SMAERR*ERRXX(I,I)
IF(SEB(I).GT.0.)GO TO 66
PRINT 144,NAMES(I),B(I)
GO TO 69
66 SEB(I)=SQRT(SEB(I))
T=B(I)/SEB(I) 00008950
CALL CONF(N5,T,P)
PRINT 144,NAMES(I),B(I),SEB(I),T,P
69 CONTINUE
PRINT 124,WHEN
PRINT 141 00008970
PRINT 146 00008980
PRINT 143 00008990
DO 70 I=1,NCOV
SEC(I)=SMATOT*TOTXX(I,I)
IF(SEC(I).GT.0.)GO TO 67
PRINT 144,NAMES(I),C(I)
GO TO 70
67 SEC(I)=SQRT(SEC(I))
T=C(I)/SEC(I) 00009030
CALL CONF(N6,T,P)
PRINT 144,NAMES(I),C(I),SEC(I),T,P
70 CONTINUE
DO 821 I=1,NVAR
X(I)=0.0 00009060
DO 821 J=1,NGRPS
TI=NG(J) 00009080
821 X(I)=X(I)+SSVAR(J,I)*TI/BIG 00009090
DO 72 J=1,NGRPS
SEADY(J)=-1. 00009100
T=0.0 00009110
TI=NG(J) 00009120
TI=1.0/TI 00009130
DO 71 I=1,NCOV
71 T=B(I)*[SSVAR(J,I)-X(I)] 00009140
ADY(J)=SSVAR(J,NVAR)-T 00009150
DO 73 I=1,NCOV 00009170
DO 73 K=1,NCOV 00009180
73 TI=T1+(SSVAR(J,I)-X(I))*ERRXX(I,K)*(SSVAR(J,K)-X(K)) 00009190
IF(SMAERR*TI.LT.0.) GO TO 72
SEADY(J)=SQRT(SMAERR*TI) 00009200
72 CONTINUE
DO 76 I=1,NGRPS 00009230
IF(MOD(I,50).NE.1)GO TO 74
PRINT 124,WHEN
PRINT 147
PRINT 148
74 IF(SEADY(I).GE.0.) GO TO 75
PRINT 149,I,SSVAR(I,NVAR),ADY(I)
GO TO 76
75 PRINT 149,I,SSVAR(I,NVAR),ADY(I),SEADY(I) 00009240
76 CONTINUE
YAC=X(NVAR)
YAD=X(NVAR)
DO 79 I=1,NCOV
YAC=YAC-C(I)*X(I)
79 YAD=YAD-D(I)*X(I)
PRINT 124,WHEN
PRINT 150
PRINT 154,YAD
PRINT 155,YAC
PRINT 151
LL=0
DO 78 I=1,NGRPS
LL=LL+1
A(I)=SSVAR(I,NVAR)
DO 77 J=1,NCOV
77 A(I)=A(I)-B(J)*SSVAR(I,J)
IF(LL.LE.45)GO TO 78
LL=1
PRINT 124,WHEN
PRINT 150
PRINT 151
78 PRINT 153,I,A(I)
141 FORMAT(/60HOTAble OF COEFFICIENTS,STANDARD ERRORS AND COMPUTED T-VO0009250
*ALUES//) 00009260
143 FORMAT(1H 10X,56HCOEFFICIENT STAND. ERROR T-VALUE CON
FIDENCE//)
144 FORMAT(1H ,A6,1X,E16.10,E16.10,1X,F11.5,5X,F9.5)
145 FORMAT(1H 23X,14HERROR (WITHIN)/)
146 FORMAT(1H 18X,23HTREATMENT*ERROR (TOTAL)/)
147 FORMAT(44H TABLE OF ADJUSTED MEANS AND STANDARD ERRORS//) 00009310
148 FORMAT(49H TREATMENT TREATMENT ADJUSTED SE ADJUSTED/6H N
*0.7X,4HMEAN9X,4HMEAN//)
149 FORMAT(1H ,15,3X,E13.7,1X,E13.7,1X,E13.7)
150 FORMAT(20H TABLE OF INTERCEPTS//)
151 FORMAT(23H TREATMENT INTERCEPT/23H NO. (WITHIN)/)
154 FORMAT(26H INTERCEPT * ,E16.10/23H (BETW
TEEN)/)
155 FORMAT(26H INTERCEPT * ,E16.10/22H (TOT
AL)/)
153 FORMAT(1H ,15,5X,E16.10)
RETURN 00009350
END 00009360

```

```

SUBROUTINE LDAY(MDAY)
  DIMENSION MDAY(3), LONG(7), MONTH(12), IBREV(7)
  DATA MONTH / 5H MAR, 5H APR, 5H MAY, 5H JUN, 5H JUL, 5H AUG,
1 5H SEP, 5H OCT, 5H NOV, 5H DEC, 5H JAN, 5H FEB /
  DATA LONG / 10H SUNDAY, 10H MONDAY, 10H TUESDAY,
1 10H WEDNESDAY, 10H THURSDAY, 10H FRIDAY, 10H SATURDAY /
  DATA IBREV / 10H SUN, 10H MON, 10H TUE,
1 10H WED, 10H THU, 10H FRI, 10H SAT /
1 FORMAT(3(1X12))
2 FORMAT(A6,12.4H, 19,12)
3 FORMAT(I4)
  I = 3
  GO TO 4
  ENTRY SDAY
  I = 1
4 CALL DATE(DAY)
  DECODE(10,1,DAY)IY,IM,ID
  IA = IM
  IF( ID.LE.31 ) GO TO 5
  IM = IY
  IY = ID
  ID = IA
5 IM = IM + 10
  IF( IM.GT.12 ) IM = IM - 12
  ENCODE(20,2,MDAY(2))MONTH(IM),ID,IY
  DECODE(10,3,MDAY(3))NYEAR
  IF( IM.GE.11 ) NYEAR = NYEAR - 1
  NC = NYEAR/100
  ND = NYEAR - 100*NC
  IC = 2.59 * FLOAT( IM )
  IC = IC + ND/4
  IC = MOD(IC + ID - NC - NC + ND + NC/4,7)
  IF( IC.LT.0 ) IC = IC + 7
  IF( I - 1 ) 7, 7, 6
6 MDAY(1) = LONG( IC+1 )
  RETURN
7 MDAY(1) = IBREV ( IC+1 )
  RETURN
END

```

```

SUBROUTINE CONF(N,T,P)
  P=.5
  IF(N.LT.1) GO TO 6
  RPI=.3183098862
  TP=ABS(T)/SQRT(FLOAT(N))
  I=N-2*(N/2)
  IF(I.EQ.1) GO TO 3
  P=P*(.5*TP/SQRT(1.+(TP*TP)))
  IF(N.EQ.2) GO TO 6
  DO 2 I=4,N,2
    AK=1.
    DO 1 J=4,I,2
      AK=AK*(FLOAT(J-3))/(FLOAT(J-2))
1 CONTINUE
  P=P*(.5*TP/SQRT(1.+(TP*TP)))*{AK*{(1.+(TP*TP))**((2-I)/2)}}
2 CONTINUE
  GO TO 6
3 P=P*RPI*ATAN(TP)
  IF(N.EQ.1) GO TO 6
  P=P*(RPI*TP/(1.+(TP*TP)))
  IF(N.EQ.3) GO TO 6
  DO 5 I=5,N,2
    AK=1.
    DO 4 J=5,I,2
      AK=AK*(FLOAT(J-3))/(FLOAT(J-2))
4 CONTINUE
  P=P*(RPI*TP/(1.+(TP*TP)))*{AK*{(1.+(TP*TP))**((3-I)/2)}}
5 CONTINUE
6 P=100.*P
  RETURN
END

```

A P P E N D I X    C

ANALYSIS OF COVARIANCE COMPUTER PROGRAM USER'S GUIDE

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## T A B L E   O F   C O N T E N T S

	<u>Page</u>
Description . . . . .	C-4
Order of Cards in Job Deck. . . . .	C-6
Deck Set-up . . . . .	C-7
Forecast Data Job Deck. . . . .	C-8
Forecast Deck Set-up. . . . .	C-9
Preparation of Program Control Cards. . . . .	C-10
Problem Card . . . . .	C-10
Transgeneration Cards. . . . .	C-12
Transgeneration List. . . . .	C-13
Card Preparation. . . . .	C-15
Group Definition Cards . . . . .	C-15
Sample Size Cards. . . . .	C-16
Labels Cards . . . . .	C-17
Variable Format Cards. . . . .	C-17
F-Type Variable Format. . . . .	C-18
Scaling . . . . .	C-20
nFw.d Specification. . . . .	C-20
SPnFw.d Specification. . . . .	C-20
Mixed nFw.d & SPnFw.d Specifications . . . . .	C-21
Data Input Cards . . . . .	C-21
Covariate Selection Cards. . . . .	C-23
Tape Input. . . . .	C-23

ANALYSIS OF COVARIANCE WITH MULTIPLE COVARIATES AND  
FORECAST CAPABILITY

DESCRIPTION

1. This program is designed to compute Analysis-of-Covariance information for one Analysis-of-Variance Variable with multiple Covariates and unequal treatment groups sizes. Cases may be specified by the user as being in certain treatment groups, or cases may be placed in treatment groups by the program in accordance with a specified boolean expression. The program provides the capability to input forecast case data to test the accuracy of the defined covariance statistical model.

2. Output from this program includes:

- a. List of case numbers, data input, and group designation (optional).
- b. Variable means for each treatment group.
- c. Total mean for each variable.
- d. Correlation matrices for total, treatment, and error (optional).
- e. Sums of products matrices for total, treatment, and error.
- f. The inverses of the Covariate matrices for total, treatment, and error.
- g. Analysis-of-Covariance table with degrees of freedom, sums of squares, mean squares, and F-ratio.
- h. Tables of regression coefficients, their standard errors, and computed t-values with and without adjustment for groups.
- i. Table of adjusted means and their standard errors.
- j. Table of Intercepts for Total, Treatment, and Error.
- k. Table of residuals for Total and Error.
- l. Table of Sum-Squares within.
- m. Table of Transgenerated Data Input with Case Numbers, and Group Designation (Optional).

3. Limitations per problem:

- a.  $v$  - Number of variables read in. However, no more than 36 variables (including the Analysis-of-Variance variable) may enter the computation, i.e.,  $v + q \leq 36$ . Also see limitations (b) and (f) below.  
( $3 \leq v \leq 99$ .)
- b.  $p$  - Number of Covariates ( $1 \leq p \leq 35$ ).
- c.  $t$  - Number of treatment groups ( $2 \leq t \leq 99$ ).

- d.  $n_i$  - Sample size of the  $i^{\text{th}}$  treatment group ( $1 \leq n_i \leq 999$ ).
- e.  $N$  - Total number of cases ( $t + p + 1 \leq N \leq 99999$ )
- f.  $q$  - Number of variables added to the original set after transgeneration ( $-96 \leq q \leq 32$ ).
- g.  $m$  - Number of Transgeneration Cards ( $0 \leq m \leq 99$ ).
- h.  $g$  - Number of Group Definition Cards ( $0 \leq g \leq 99$ ).
- i.  $k$  - Number of Variable Format Cards ( $1 \leq k \leq 10$ ).

The above limitations are built into the program and are checked for each problem. If violations occur, a message to that effect is printed, and the entire job is skipped by the system.

4. One set of data input may be processed an indefinite number of times. The user may select various combinations of variables by specifying different variable formats. For each variable selection of the data input, different transgeneration options may be used since data does not remain transformed from one variable selection to the next.

5. This program allows for the placement of cases into particular treatment groups in accordance with a boolean expression on the Group Definition Card. If the case under consideration satisfies the boolean expression given on the Group Definition Card, it is assigned to the treatment group specified on the cards. If the case does not satisfy the boolean expression, the case is skipped.

The boolean expression contains the following:

Relationships	{	GT (Greater Than)
		GE (Greater than or equal to)
		LT (Less Than)
		LE (Less than or equal to)
		EQ (Equal To)
		NE (Not Equal To)
Operations	{	A (And)
		$\phi$ (Or)

For example, 6 21GT3.000A05EQ1.000 $\phi$ 07LE68.50, states that a case is in treatment group 6 if variable 21 is greater than 3.000 and variable 05 equals 1.000 or variable 07 is less than or equal to 68.50.

The boolean expression should be prepared carefully so that there is no possibility of a case satisfying the expression for more than one group.

6. Information from this program includes that usually computed from standard multiple regression analysis. By an arbitrary partitioning of the data input into at least two treatment groups and ignoring the "WITHIN" output, the program may be used to perform multiple regression analysis.

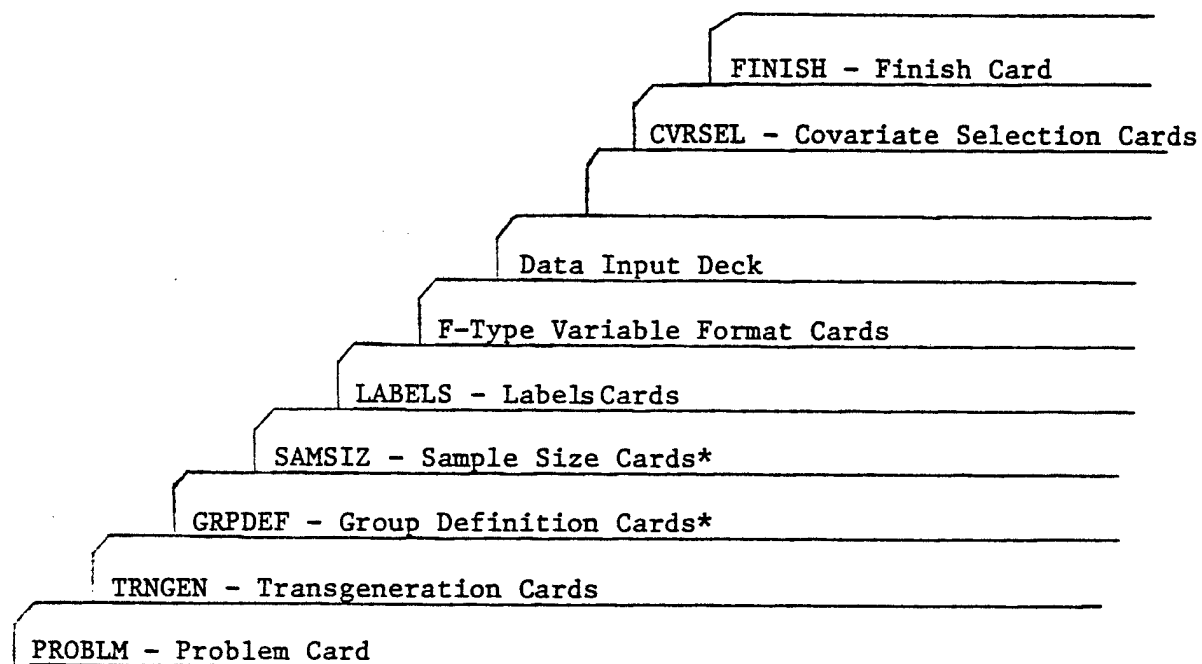
#### ORDER OF CARDS IN JOB DECK

Cards indicated by numbers enclosed in parentheses are optional. All other cards must be included in the order shown.

1. System Cards
2. Problem Card
- (3.) Standard Transgeneration Cards
- (4.) Group Definition Cards\*
- (5.) Sample Size Cards\*
- (6.) Labels Cards
7. F-Type Variable Format Cards
8. Data Input Cards (place data input deck here, if data input is from cards).
9. Covariate Selection Cards  
     . . . Repeat 2. through 9. as desired.
10. Finish Card

\*NOTE: Either (4) or (5) must be used but not both.

DECK SET-UP

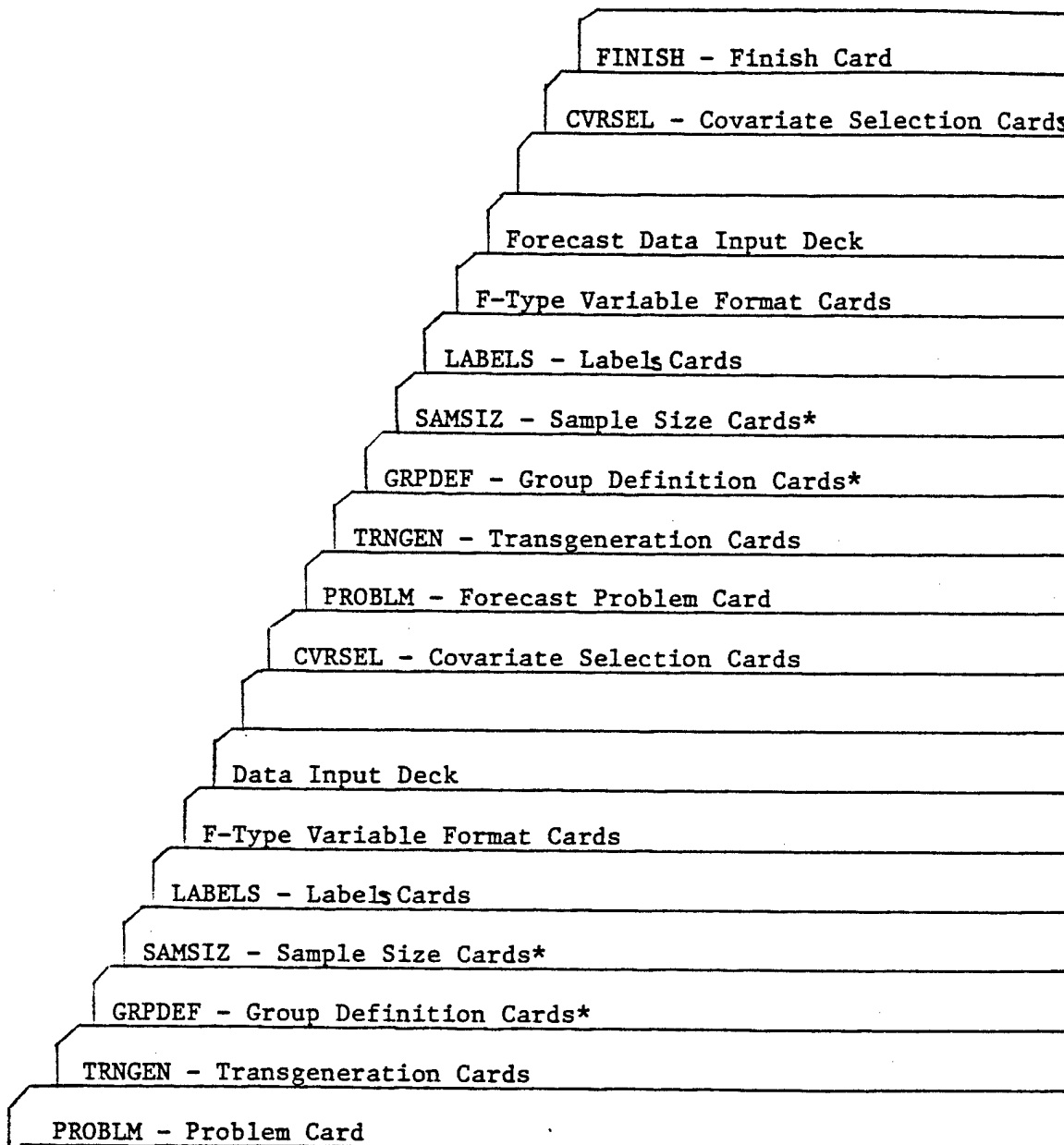


FORECAST DATA JOB DECK

The forecast case data is input in a second problem deck back-to-back with the problem deck that defines the statistical model as described above. The Forecast problem Deck is inserted after the Covariate Selection Cards of the previously defined problem deck. The complete job deck is described as follows:

1. Cards (1) through (9), as shown in the above order of cards in the job deck.
2. Problem Card. (Same as card (2) except for the following; Input the number of forecast cases in Column 15-19, input the characters "Yes" in Columns 61-63.)
3. Repeat cards (3) through (7).
4. Forecast Data Input Cards (Place data input deck here, if data input is from cards.)
5. Repeat card (9).
6. Finish card.

FORECAST DECK SET-UP:



PREPARATION OF PROGRAM CONTROL CARDSPROBLEM CARD (One problem card for each problem.)

Columns 1-6	PROBLM	(Mandatory)
Columns 7-12	Alphanumeric identification. This must be the same as the preceeding problem if and only if the same (untransgenerated) data input from that problem is to be the data input for this problem. (This feature avoids reporoducing the same data input for more than one consecutive problem.)	
Columns 13-14	Number of treatment groups ( $2 \leq t \leq 99$ )	
Columns 15-19	Total number of cases for all treatment groups ( $t + p + 1 \leq N \leq 99,999$ )	
Columns 20, 21	Number of cards per case	
Columns 22, 23	Number of variables read in ( $2 \leq V \leq 99$ )	
Columns 24-26	000 - No variables added to the original set after transgeneration.  q, q - Variables added to the original set after transgeneration. ( $-97 \leq q \leq 34$ )	

NOTE: Covariates and the variate (dependent variable) may be generated from the original variables as desired by the transgeneration process. The limit of 99 variables cannot be exceeded at any point during trans-generation. No more than 36 variables may enter the computation.

Columns 27, 28      Index of the variate or dependent variable.

Columns 29-31      YES - If the data input is to be printed; otherwise, leave blank.

Columns 32-34      Number of labels specified on Label Cards; if the labels are not specified, leave blank.

Columns 35-37      YES - If the data cards from the previous problem are to be used. (A different set of variable format cards may be used. If new data cards are to be used, leave these columns blank.)

Columns 38, 39      Number of Group Definition Cards ( $0 \leq g \leq 99$ )

NOTE: The number of groups defined by these cards must be the  $t$  groups specified in columns 13, 14.

Columns 40-42      YES - If residuals (within) are to be printed; otherwise, leave blank.

Columns 43-45      YES - If residuals (total) are to be printed; otherwise, leave blank.

Columns 46-48      YES - If the transgenerated variables entering the computation are to be printed; otherwise, leave blank.

Columns 49-57      Blank

Columns 58-60      YES - If the correlation matrices are to be printed; otherwise, leave blank.

Columns 61-63      YES - If the forecast data input is included; otherwise, leave blank.

Columns 65, 66      NO - If input tape is not to be rewound before reading.

Columns 67, 68      00 - No transgeneration.  
 $m$  -  $m$  transgeneration cards ( $0 \leq m \leq 99$ )

Columns 69, 70      00 - If data input if from cards.  
 $T$  - If data input is on logical BCD tape  $T$ , ( $T \neq 1, 2, 3, 5, 6, 7$ )

Columns 71, 72      Number of variable format cards ( $1 \leq k \leq 10$ )

TRANSGENERATION CARDS

The term transgeneration is used to include transformations of input variables and creation of new variables prior to the computations performed by the statistical program.

The transformations described below are performed on the values of the variables in each case. In these examples, the symbol  $X_i$  will denote the  $i^{\text{th}}$  variable as well as its value.

## EXAMPLES:

$$\text{Log}_{10} X_4 \rightarrow X_4$$

$\text{Log}_{10} X_4$  replaces  $X_4$

$$X_5^c \rightarrow X_1$$

$X_5^c$  replaces  $X_1$

$$X_2 + X_3 \rightarrow X_2$$

$X_2 + X_3$  replaces  $X_2$

By successive transformations, more complicated relationships may be obtained. For example:

(i) To replace  $X_5$  by  $\sqrt{X_1^2 + X_3^2}$  four transformations are required:

Variables as they are stored at each step					
Transformation	$X_1$	$X_2$	$X_3$	$X_4$	$X_5$
$X_1^2 \rightarrow X_1$	$X_1^2$	$X_2$	$X_3$	$X_4$	$X_5$
$X_3^2 \rightarrow X_3$	$X_1^2$	$X_2$	$X_3^2$	$X_4$	$X_5$
$X_1 + X_3 \rightarrow X_5$	$X_1^2$	$X_2$	$X_3^2$	$X_4$	$X_1^2 + X_3^2$
$X_5 \rightarrow \sqrt{X_5}$	$X_1^2$	$X_2$	$X_3^2$	$X_4$	$\sqrt{X_1^2 + X_3^2}$

In this example, it can be seen that the original values of  $X_5$  are irrelevant. Actually the variable  $X_5$  may be a dummy variable introduced by the program specifically to provide capacity for creating new variables by transgeneration. Dummy variables may be required for intermediate storage in order to effect some transformations.

(ii) To replace  $X_1$  by  $\text{Exp}(-1/2 X_1^2)$  three transformations are required:

<u>TRANSFORMATION</u>	$X_1$
$X_1^2 \rightarrow X_1$	$X_1^2$
$-1/2 X_1 \rightarrow X_1$	$-1/2 X_1^2$
$\text{Exp}(X_1) \rightarrow X_1$	$\text{Exp}(-1/2 X_1^2)$

(iii) To replace  $X_4$  by  $X_2 + \text{Log}_{10}(X_4 - X_3 + 100)$  four transformations are required:

<u>TRANSFORMATION</u>	$X_1$	$X_2$	$X_3$	$X_4$
$X_4 - X_3 \rightarrow X_4$	$X_1$	$X_2$	$X_3$	$X_4 - X_3$
$X_4 + 100 \rightarrow X_4$	$X_1$	$X_2$	$X_3$	$(X_4 - X_3 + 100)$
$\text{Log}_{10} X_4 \rightarrow X_4$	$X_1$	$X_2$	$X_3$	$\text{Log}_{10}(X_4 - X_3 + 100)$
$X_2 + X_4 \rightarrow X_4$	$X_1$	$X_2$	$X_3$	$X_2 + \text{Log}_{10}(X_4 - X_3 + 100)$

The transformations are performed in the order in which the transgeneration cards appear, so that, for example, the two transgenerations  $2X_1 \rightarrow X_1$  followed by  $X_1 - 2 \rightarrow X_1$ , will result in  $2X_1 - 2$ , whereas  $X_1 - 2 \rightarrow X_1$  followed by  $2X_1 \rightarrow X_1$  will result in  $2(X_1 - 2)$ .

#### TRANSGENERATION LIST

Notation to be used in the following transgeneration list:

i, j, k are variable indices (need not be different)

c is a constant

n is a number of cases or sample size

<u>Code</u>	<u>Transgeneration</u>	<u>Restriction</u>
01	$\sqrt{X_i} \rightarrow X_k$	$X_i \geq 0$
02	$\sqrt{X_i} + \sqrt{X_i + 1} \rightarrow X_k$	$X_i \geq 0$

<u>Code</u>	<u>Transgeneration</u>	<u>Restriction</u>
03	$\text{Log}_{10} X_i \rightarrow X_k$	$X_i > 0$
04	$e^{X_i} \rightarrow X_k$	
05	$\text{ARCSIN} \sqrt{X_i} \rightarrow X_k$	$0 \leq X_i \leq 1$
06	$\text{ARCSIN} \sqrt{X_i / (n + 1)} + \text{ARCSIN} \sqrt{(X_i + 1) / (n + 1)} \rightarrow X_k$	$0 \leq (X_i / n) \leq 1$
07	$1/X_i \rightarrow X_k$	$X_i \neq 0$
08	$X_i + C \rightarrow X_k$	
09	$X_i C \rightarrow X_k$	
10	$X_i^C \rightarrow X_k$	$X_i \geq 0$
11	$X_i + X_j \rightarrow X_k$	
12	$X_i - X_j \rightarrow X_k$	
13	$X_i X_j \rightarrow X_k$	
14	$X_i / X_j \rightarrow X_k$	$X_j \neq 0$
15	If $X_i \geq c$ , $1 \rightarrow X_k$ ; otherwise $0 \rightarrow X_k$	
16	If $X_i \geq X_j$ , $1 \rightarrow X_k$ ; otherwise $0 \rightarrow X_k$	
17	$\text{Log } e^{X_i} \rightarrow X_k$	$X_i > 0$
20	$\text{Sin } X_i \rightarrow X_k$	
21	$\text{Cos } X_i \rightarrow X_k$	
22	$\text{Arctan } X_i \rightarrow X_k$	
23	$X_i^{X_j} \rightarrow X_k$	$X_i > 0$
24	$C^{X_i} \rightarrow X_k$	$C > 0$

<u>Code</u>	<u>Transgeneration</u>	<u>Restriction</u>
41	If $X_i$ is blank, then $C \rightarrow X_k$ ; otherwise $X_k$ remains unchanged.	$X_i \neq -0^*$

\*NOTE: In reading numeric fields, a blank field may be read as -0.

When a violation of a restriction in the right-hand column occurs during transgeneration, the program will print a diagnostic message and continue the computation with the data unchanged where the violation occurred.

#### CARD PREPARATION

Column 1-6	TRNGEN	(Mandatory)
Column 7-9	Variable index k	
Columns 10, 11	Code from transgeneration list	
Column 12-14	Variable index i	
Column 15-20	Variable index j or constant C	

The Constant C is punched with a decimal point if used with variables which have an F-Type format and without a decimal point if used with variables which have an I-Type format.

The transgeneration cards for the three examples cited above are:

- (i) TRNGEN001100012.0000  
TRNGEN003100032.0000  
TRNGEN00511001000003  
TRNGEN00501005000000
- (ii) TRNGEN001100012.0000  
TRNGEN00109001-0.500  
TRNGEN00104001000000
- (iii) TRNGEN00412004000003  
TRNGEN00408004100.00  
TRNGEN00403004000000  
TRNGEN00411004000002

#### GROUP DEFINITION CARDS

If the boolean selection feature is being used to place cases in their treatment groups, Group Definition Cards are prepared to select the cases for the t groups specified in columns 13, 14 of the Problem Card.

Column 1-6	GRPDEF	(Mandatory)
Columns 7, 8	Treatment group number to which case should be assigned if it satisfies the boolean expression.	

Columns 9, 10	Variable index for the first relationship
Columns 11, 12	Relationship
	GT (Greater Than)
	LT (Less Than)
	LE (Less Than or Equal To)
	GE (Greater Than or Equal To)
	EQ (Equal To)
	NE (Not Equal To)
Column 13-17	Constant used in the relationship (punch the decimal point).
Column 18	Operation
	A (AND)
	Ø (OR)
	* (This terminates the boolean expression)
Columns 19, 20	Variable index for the second relationship
Columns 21, 22	Relationship
...	
Column 68	Operation

NOTE: If additional boolean expressions are required for a particular treatment group, continue on a second card and terminate the expression with the asterisk (\*) in the appropriate column. As many cards as needed may be used as long as the total does not exceed the limitation of 99. Since parentheses cannot be used for compound AND/OR expressions, AND is assumed to precede OR. The statement W OR X AND Y OR Z will operate as W OR (X AND Y) OR Z.

#### SAMPLE SIZE CARDS

Sample Size Cards are prepared if cases are specified by the user as being in certain treatment groups. These cards are not prepared if the boolean selection feature is used.

Column 1-6	SAMSIZ	(Mandatory)
Column 7-9	Number of cases in 1st treatment group	
Column 10-12	Number of cases in 2nd treatment group	
...		
Column 70-72	Number of cases in 22nd treatment group. If there are more than 22 treatment groups, continue keypunching a second card, a third card, etc., in the same manner, i.e.,	
Column 1-6	SAMSIZ	(Mandatory)
Column 7-9	Number of cases in the 23rd treatment group	
...		

LABELS CARDS

Labels cards allow the user to substitute alphanumeric names for the usual numeric indices (variable numbers) which appear on the printed output.

CARD PREPARATION

Columns 1-6	LABELS	(Mandatory)
Columns 7-10	The number of the variable (or index) to be named. This number must be right-justified.	
Columns 11-16	The corresponding alphanumeric name.	
Columns 17-20	The number of another variable.	
Columns 21-26	The corresponding alphanumeric name.	
.		
.		
.		
Columns 67-70	The number of another variable.	
Columns 71-76	The corresponding alphanumeric name. (Up to 7 per card.)	

There may be from one to seven pairs of variable numbers and labels on each Labels Card. If desired, only one pair may be specified on each card. However, the total number of labels appearing on all the Labels Cards must equal the number of labels specified on the problem card.

It is not necessary to label all the variables. Those labeled may be listed in any order. EXAMPLE: Suppose the number of variables to be labeled as specified on the Problem Card is 8. Then the Labels Cards might be punched as:

```
LABELS  10 HEIGHT 07WEIGHT  06  AGE  11TYPE  17GROUP  03STATUS
LABELS  01GAIN  08SYSTEM
```

VARIABLE FORMAT CARDS (FOR INPUT)

The word "FORMAT" usually refers to the arrangement of information keypunched on a card. The format of a data card is a sequence of fields (variables), each of which occupies one or more columns. For the computer program a format is a set of specifications according to which information is read into the program from punched cards. The specifications tell the program which parts (or columns) of the card to skip, which parts to regard as all one number, and which parts to regard as several numbers in a row. For instance, it is the format which tells the program whether a card punched "345890021" is to be read in as "34.5, 890.0, .021", or "34., 9002.1", or "598.002", or "3, 4, 58, 90, 0, 2, 1", etc. It does this by giving the program a sequence of specifications which indicate the size of a field and

the method of handling that field (i.e., skipping it, entering it into the computer as a whole number, entering it into the computer as a number with two decimal digits, etc.).

The format also tells that program how to read in a certain set of cards when more than one are required to contain all the data for one case. The format describes the variables for each case. Each successive case is assumed to have the same format.

If the format for the program is fixed in advance, all data would have to be punched on cards in the same way for every study. Since this is not usually convenient, the program has been written so that the user may vary the format according to his preference for a particular study. For this reason, they are referred to as "Variable Formats". The program is informed of the format which is to be used by Variable Format Cards. The user must specify on the Problem Card the number of cards used to keypunch the variable format.

In addition to providing an economical method of preparing data input cards (by defining fields to be as small as possible, or "packing" the data), the variable format permits considerable freedom in controlling data input.

For instance:

- It allows the user to select for each case only those cards which have fields of interest. (See examples i, iii, iv below.)
- It allows the user to select only those fields of interest from among the fields of each card. (See examples ii, iii, iv.)
- It allows the user to scale the data input, i.e., shift the decimal point.

#### F-TYPE VARIABLE FORMAT

The F-Type format is the most frequently used in the program. It is required when the decimal point is keypunched on the card or when the decimal point is to be placed by the program. All data input values must be signed (+) or unsigned numbers with or without a decimal point punched.

#### SPECIFICATIONS:

1. "nFw.d" - F is the floating point (decimal) indicator; n is the number of fields of width W (includes sign and decimal point if punched); and d is the number of digits to the right of the decimal point if the decimal point is not punched ( $0 \leq d \leq w$ ). If the decimal is punched, d is ignored. If n is not specified, it is assumed to be 1.
2. "sPnFw.d" - P is the scale indicator; s is a scale factor (explained below); and n, w, and d are defined in specification 1.
3. "mX" (Alphabetic X) - X is the skip indicator, and m is the number of columns to be skipped.

4. "/" - (slash) indicates "go to the next data card." Depending on its location in the format statement, the "/" will either direct the program to go immediately to the next card (ignoring any further information on the current card) or skip one card altogether. For example, if a format begins with "/", the program will automatically skip the first card, read the second, skip the third, etc. (See examples i, iii, iv.) "/" indicates "go to the card after next." Two slashes "/" will direct the program to skip two cards. Any number of slashes may be used.

The format is keypunched beginning with a left parenthesis, followed by a sequence of specifications and closed by a right parenthesis. Specifications 1, 2, and 3 are followed by a comma, except preceding a slash or right-hand parenthesis. Blank columns within the format are ignored.

#### EXAMPLES:

(i) (12F3.0, F4.0, 11F2.0/) punched in the first 21 columns of the variable format card, will describe 12 three-column fields followed by 1 four-column field, followed by 11 two-column fields, followed by an instruction to skip the second card, read the third, skip the fourth, etc.

(ii) (10x, F6.0, 2x, 2F3.0) punched in the first 19 columns, will instruct the program to direct entry of data from each card as follows:

1. Skip 10 columns.
2. Pick up a six-digit field in Column 11-16.
3. Skip 2 columns.
4. Pick up 2 three-digit fields in Columns 19-21 and 22-24.

(iii) (5X, 2F6.0, F1.0, 3X, F5.0/5X, F6.0) punched in the first 31 columns, will instruct the program to direct entry of data from each pair of cards as follows:

1. Skip 5 columns.
2. Pick up 2 six-digit fields in Columns 6-11 and 12-17.
3. Pick up a one-digit field in Column 18.
4. Skip three columns (Columns 19-21).
5. Pick up a five-digit field in Columns 22-26.
6. Go to second data card.
7. Skip 5 columns.
8. Pick up a six-digit field in Columns 6-11 of second card.
9. Repeat for each pair of data cards.

(iv) (5X, 2F6.0, F1.0, 3X, F5.0//5X, F6.0/F4.0, 2X, F1.0) punched in the first 45 columns, will instruct the program to direct entry of data from each set of four cards as follows:

- 1-5. Same as example (iii).
6. Skip second card and go to third card.
7. Skip 5 columns.
8. Pick up a six-digit field in Columns 6-11 of third card.
9. Go to fourth card.
10. Pick up a four-digit field in Column 1-4 of fourth card.
11. Skp two columns.
12. Pick up a one-digit field in Column 7.
13. Repeat for each set of four cards.

#### SCALING

Scaling may be indicated by using either the "nFw.d" specification or the "sPnFw.d" specification.

#### "nFw.d" SPECIFICATION

When the decimal point is not punched, the d of the above specification instructs the program to divide the whole picked up by  $10^d$ . For example, F6.1 will specify that the number picked up in a six-column field be divided by 10, F6.2 will specify division by 100, and F6.6 will specify division by 1,000,000.

$$\text{Stored number} = \text{punched number} / 10^d.$$

#### EXAMPLES:

<u>Punched Number</u>	<u>Format Specification</u>	<u>Stored Number</u>
2468	F4.0	2468.0
3691	F4.1	369.1
4810	F4.3	4.810
4911.32	F7.0	4911.32
172115	F6.6	0.172115

#### "sPnFw.d" SPECIFICATION

Whether the decimal point is punched or not, the s of the above specification instructs the program to divide the number picked up by

$10^S$ . For example, 2PF6.0 will specify division by 100, -2PF6.0 will specify division by .01. If the decimal point is punched:

$$\text{Stored number} = \text{Punched number} / 10^S$$

If the decimal is not punched:

$$\text{Stored number} = \text{Punched number} / 10^{S+d}$$

#### EXAMPLES:

<u>Punched Number</u>	<u>Format Specification</u>	<u>Stored Number</u>
7432	1PF4.0	743.2
74.32	-5PF5.0	7432000.0
7432	2PF4.3	0.07432
7432	1P2F2.0	7.4 & 3.2
7432	2P2F2.1	0.074 & 0.032
7432	OPF4.1	743.2
7.432	-3PF5.0	7432.0

#### MIXED "nFw.d" AND "sPnFw.d" SPECIFICATIONS:

Once the sPnFw.d specification has been used, it will hold for all Fw.d specifications to the right of it until another sPnFw.d is encountered. If the sPnFw.d specification is not necessary to the right of its occurrence within the variable format statement, then OPFw.d should be used for the next specification to the right, which will hold then for the remaining specifications.

#### EXAMPLES:

(v) (2F3.1, 2x, F4.2, -6PF3.0, F4.0) - The program interprets the last field as -6PF4.0.

(vi) (2F3.1, 2X, F4.2, -6PF3.0, OPF3.0) - The program interprets the last field as F3.0.

(vii) (1PF3.0, F2.0, OPF3.1, F4.2, F4.0) - The program interprets the second field as 1PF2.0.

#### DATA INPUT CARDS

The form of the data input when Sample Size Cards are prepared is illustrated in the following example:

		<u>VARIABLES</u>				
		<u>CASES</u>	<u>1</u>	<u>2</u>	<u>. . .</u>	<u>v</u>
Treatment Group 1	1		$X_{1,1,1}$	$X_{1,1,2}$	$. . .$	$X_{1,1,v}$
	2		$X_{1,2,1}$	$X_{1,2,2}$	$. . .$	$X_{1,2,v}$
	$. . .$		$. . .$	$. . .$	$. . .$	$. . .$
	$n_1$		$X_{1, n_1, 1}$	$X_{1,n_1,2}$	$. . .$	$X_{1,n_1,v}$

		<u>VARIABLES</u>				
		<u>CASES</u>	<u>1</u>	<u>2</u>	<u>. . .</u>	<u>v</u>
Treatment Group 2	1		$X_{2,1,1}$	$X_{2,1,2}$	. . .	$X_{2,1,v}$
	2		$X_{2,2,1}$	$X_{2,2,2}$	. . .	$X_{2,2,v}$
	. . .		. . .	. . .	. . .	. . .
	$n_2$		$X_{2,n_2,1}$	$X_{2,n_2,2}$	. . .	$X_{2,n_2,v}$

$. . .$

		<u>VARIABLES</u>				
		<u>CASES</u>	<u>1</u>	<u>2</u>	<u>. . .</u>	<u>v</u>
Treatment Group t	1		$X_{t,1,1}$	$X_{t,1,2}$	$\cdot \cdot \cdot$	$X_{t,1,v}$
	2		$X_{t,2,1}$	$X_{t,2,2}$	$\cdot \cdot \cdot$	$X_{t,2,v}$
	$\cdot \cdot \cdot$		$\cdot \cdot \cdot$	$\cdot \cdot \cdot$	$\cdot \cdot \cdot$	$\cdot \cdot \cdot$
	$n_t$		$X_{t,n_t,1}$	$X_{t,n_t,2}$	$\cdot \cdot \cdot$	$X_{t,n_t,v}$

The preparation of data input on cards is as follows:

1. The cards must be arranged in consecutive treatment groups.
2. Within each treatment group the cards must be arranged in consecutive cases.
3. For each case the variables must be keypunched in fields from left to right across the card (and on to successive cards, if necessary).
4. Each case must begin on a new card.

If the data input is from a prepared BCD tape, the arrangement of data must be in the same form as indicated above. Each case must be a logical record with the last record consisting of the last case of the  $t^{\text{th}}$  treatment group.

When Group Definition Cards are used, the data is prepared in a similar manner as above considering the data as a single treatment group.

#### COVARIATE SELECTION CARDS

The indices to be used in specifying the covariates are the indices corresponding to the variables after transgeneration.

Columns 1-6	CVRSEL (Mandatory)
Columns 7, 8	Number of Covariates for this problem ( $1 \leq p \leq 35$ )
Columns 9, 10	Index of the 1st Covariate
Columns 11, 12	Index of the 2nd Covariate
...	
Columns 71, 72	Index of the 32nd Covariate

If there are more than 32 Covariates, they are specified on a second Covariate Selection Card as follows:

Columns 1-6	CVRSEL (Mandatory)
Columns 7, 8	Index of the 33rd Covariate
Columns 9, 10	Index of the 34th Covariate
Columns 11, 12	Index of the 35th Covariate

#### TAPE INPUT

The program has provision for input of data prepared on tape or disk by means of an alternate input tape. Use of tapes or disks for data provide a very compact storage of data files. One data file may be reread several times to allow several analyses from the same data file by rewinding the alternate input tape.

When the data input consists of p variables on n cases written in consecutive Logical records on magnetic tape in Binary Coded Decimal (BCD) form, a special data input tape may be used. The logical record will usually be the equivalent of one card. When a binary tape is used for data input, it is assumed to be in the standard FORTRAN binary tape format. The user will specify which tape drive is to receive the special data tape.

The program uses several tapes for intermediate storage. Tape numbers 2, 3, 7, 8, and 9, in addition to 5 and 6, may not be specified as alternate input or output tapes for the program.

A P P E N D I X    D  
COMPUTATIONAL PROCEDURE

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TABLE OF CONTENTS

	<u>Page No.</u>
LIST OF SYMBOLS . . . . .	D-4
DISCUSSION . . . . .	D-6
GOVERNING EQUATIONS . . . . .	D-7

LIST OF SYMBOLS

$a, b, k, m$	covariate designators
$A_k$	Total regression coefficient of $k^{\text{th}}$ covariate
$B_k, \beta_k$	Error (Within) regression coefficient of $k^{\text{th}}$ covariate
$e_{ij}$	residual variate error for the $j^{\text{th}}$ sample of $i^{\text{th}}$ treatment group
$E_{\text{about}}$	Error (Within) sum of squared deviation about regression equation
$E_{\text{due}}$	Error (Within) sum of squared deviation due to regression equation
$E_{km}$	inverse of $E_{XX_{km}}$ matrix
$E_{XX_{ab}}$	Error (Within) sum of squared deviation for $a^{\text{th}}$ and $b^{\text{th}}$ covariates
$E_{XY_k}$	Error (Within) sum of squared deviation for variate and $k^{\text{th}}$ covariate
$E_{YY}$	Error (Within) sum of squared deviation for variates
$i$	Treatment group designator
$j$	treatment group sample size designator
$n_i$	sample size of the $i^{\text{th}}$ treatment group
$N$	total number of cases
$S_{\text{about}}$	Total sum of squared deviation about regression equation
$S_{\text{due}}$	Total sum of squared deviation due to regression equation
$S_{km}$	inverse of $S_{XX_{km}}$ matrix
$S_{XX_{ab}}$	Total sum of squared deviation for $a^{\text{th}}$ and $b^{\text{th}}$ covariates
$S_{XY_k}$	Total sum of squared deviation for variate and $k^{\text{th}}$ covariate

$S_{YY}$	Total sum of squared deviation for variate
$SE(A_k)$	standard error of $k^{th}$ total regression coefficient
$SE(ADJ Y_{i.})$	standard error of adjusted variate mean for the $i^{th}$ treatment group
$SE(B_k)$	standard error of $k^{th}$ error (within) regression coefficient
$t_k$	computed T-value of $k^{th}$ regression coefficient
$T_{XY_{ab}}$	Treatment (Between) sum of squared deviation for $a^{th}$ and $b^{th}$ covariates
$T_{XY_k}$	Treatment (Between) sum of squared deviation for variate and $k^{th}$ covariate
$T_{YY}$	Treatment (Between) sum of squared deviation for variates
$X_{ijk}$	$k^{th}$ covariate for the $j^{th}$ sample of $i^{th}$ treatment group
$X_{i.k}$	$k^{th}$ covariate mean for the $i^{th}$ treatment group
$X_{..k}$	$k^{th}$ covariate mean, ingoring treatments
$Y_{ij}$	variate for the $j^{th}$ sample of $i^{th}$ treatment group
$Y_{i.}$	variate mean for the $i^{th}$ treatment group
$\alpha_i$	differential effect on mean for the $i^{th}$ treatment group
$\mu$	overall mean
$\mu + \alpha_i, ADJ(Y_{i.})$	adjusted covariate mean for the $i^{th}$ treatment group

DISCUSSION

This section presents the computational procedure for the Analysis-of-Covariance statistical model together with the intermediate residual calculations. The first step in the formulation of the statistical model equations is the calculation of the variate and covariate group means. Next, the cross product deviation matrices for the Total, Treatment, and Error solutions are formed and inverted to solve for the regression coefficients. The final step in the formulation of the model equations is the solution of the adjusted variate group means. The inclusion in this report of the model equations and associated correlation equations is not meant as a full treatise on the subject. A thorough treatment of the governing statistical equations can be found in any standard text (i.e., references (b) and (c)).

GOVERNING EQUATIONSCOMPUTATIONAL PROCEDURE

Statistical Model:

$$Y_{ij} = \mu + \alpha_i + \beta_1 (X_{ij1} - X_{i.1}) + \dots + \beta_p (X_{ijp} - X_{i.p}) + e_{ij}$$

Notation:

$$X_{ijk} (k^{\text{th}} \text{ Covariate}), Y_{ij} = X_{ij(p+1)} (\text{Variate})$$

$$i = 1, 2, \dots, t \quad (\text{Treatment Groups})$$

$$j = 1, 2, \dots, n_i \quad (\text{Sample size of the } i^{\text{th}} \text{ treatment group})$$

$$k = 1, 2, \dots, p \quad (\text{Covariates})$$

$$m = 1, 2, \dots, p \quad (\text{Covariates})$$

$$a = 1, 2, \dots, p+1 \quad (\text{Covariates} + 1 \text{ variate})$$

$$b = 1, 2, \dots, p+1 \quad (\text{Covariates} + 1 \text{ variate})$$

Step 1

$$1. N = \sum_{i=1}^t n_i \quad (\text{Total number of cases})$$

$$2. Y_{i.} = \frac{1}{n_i} \sum_{j=1}^{n_i} Y_{ij} \quad (\text{Variate mean for the } i^{\text{th}} \text{ group})$$

$$3. X_{i.k} = \frac{1}{n_i} \sum_{j=1}^{n_i} X_{ijk} \quad (\text{Covariate means for the } i^{\text{th}} \text{ group and } k^{\text{th}} \text{ covariate})$$

$$4. X_{..k} = \frac{1}{N} \sum_{i=1}^t \sum_{j=1}^{n_i} X_{ijk} \quad (\text{kth Covariate mean, ignoring treatments})$$

(2) and (3) are printed under the heading variable means for each group.

Step 2. Sums of Squared Deviation

## 1. Total

$$S_{XX_{ab}} = \sum_{i=1}^t \sum_{j=1}^{n_i} X_{ija} X_{ijb} - \frac{\left( \sum_{i=1}^t \sum_{j=1}^{n_i} X_{ija} \right) \left( \sum_{i=1}^t \sum_{j=1}^{n_i} X_{ijb} \right)}{N}$$

$$S_{XY_k} = S_{XX_{k(p+1)}}$$

$$S_{YY} = S_{XX_{(p+1)(p+1)}}$$

## 2. Treatment (Between)

$$T_{XX_{ab}} = \sum_{i=1}^t \frac{\left( \sum_{j=1}^{n_i} X_{ija} \right) \left( \sum_{j=1}^{n_i} X_{ijb} \right)}{n_i} - \left( \sum_{i=1}^t \sum_{j=1}^{n_i} X_{ija} \right) \cdot \frac{\left( \sum_{i=1}^t \sum_{j=1}^{n_i} X_{ijb} \right)}{N}$$

$$T_{XY_k} = T_{XX_{k(p+1)}}$$

$$T_{YY} = T_{XX_{(p+1)(p+1)}}$$

## 3. Error (Within)

$$E_{XX_{ab}} = S_{XX_{ab}} - T_{XX_{ab}}$$

$$E_{XY_{k(p+1)}} = S_{XY_{k(p+1)}} - T_{XY_{k(p+1)}}$$

$$E_{YY} = S_{YY} - T_{YY}$$

(1), (2), and (3) are printed under the heading Sums of Squares and Cross Product Matrix for Total, Treatment, and Error.

### Step 3. Regression Coefficients

1. Matrices  $S_{XX_{km}}$  and  $E_{XX_{km}}$  are inverted.

$$\text{Let } S_{km} = (S_{XX_{km}})^{-1}, E_{km} = (E_{XX_{km}})^{-1}$$

$$2. B_k = \sum_{m=1}^P (E_{km})(E_{XY_m}) \quad (\text{Error Coefficients})$$

$$3. A_k = \sum_{m=1}^P (S_{km})(S_{XY_m}) \quad (\text{Total Coefficients})$$

(1) is printed under the heading, Inverse of the Covariates Cross Product Matrix for Total and Error.

### Step 4. Regression Sums of Squares

- (1) Error (Within)

$$E_{\text{due}} = \sum_{k=1}^P B_k E_{XY_k}$$

$$E_{\text{about}} = E_{YY} - E_{\text{due}}$$

2. Total

$$S_{\text{due}} = \sum_{k=1}^P A_k S_{XY_k}$$

$$S_{\text{about}} = S_{YY} - S_{\text{due}}$$

(1) and (2) are printed in the Analysis of Covariance Table.

### Step 5. Standard Errors of Regression Coefficients and computed t - VALUES

	<u>STANDARD ERRORS</u>	<u>COMPUTED t - VALUES</u>
ERROR:	$SE(B_k) = \sqrt{E_{\text{about}}} \cdot E_{kk}$	$t_k = \frac{B_k}{SE(B_k)}$
TOTAL:	$SE(A_k) = \sqrt{S_{\text{about}}} \cdot S_{kk}$	$t_k = \frac{A_k}{SE(A_k)}$

These and (1) and (3) from Step 3 are printed in the output under the heading TABLE OF COEFFICIENTS, STANDARD ERRORS AND COMPUTED T-VALUES.

Step 6. Adjusted Means and Standard Errors of Adjusted Means

(1) Adjusted Means

$$\text{ADJ } (Y_{i.}) = Y_{i.} - \sum_{m=1}^P B_m (X_{i.m} - X_{..m})$$

(2) Standard Errors of Adjusted Means

$$\text{SE}(\text{ADJ } Y_{i.}) = \left\{ E_{\text{due}} \left[ \frac{1}{n_i} + \sum_{k=1}^P \sum_{m=1}^P (X_{i.k} - X_{..k}) E_{km} (X_{i.m} - X_{..m}) \right] \right\}^{1/2}$$

These are printed in the output under the heading, Table of Adjusted Means and Standard Errors.